

# Transportation Planning Academy

## Caltrans, District 6

Gary Cathey, Chief  
Division of Aeronautics

April 8, 2014



# *Aeronautics' Agenda*

- What is the role of the Division of Aeronautics?
- Developing a new perception of aviation in California
- How Caltrans Transportation Planning Programs can integrate aviation
- Redefine the role of a *Multimodal* Transportation Planner

## Objectives:

**What:** Increase awareness of aviation, beyond the airport runway and hangars

**How:** Define the various programs that will continuously integrate aviation

**Who:** Explain *Your Role* as a *multimodal* Transportation Planner



# *Changing Perceptions*

## *Airports are regional economic engines!*

- Aircraft are flown to regional community aviation commerce centers, more commonly known as airports, which come in all sizes
- Airports have become mixed use development centers, or multi-functional hubs for conducting business, commerce and transportation...



# *Division Overview*

## Aeronautics Offices and Specialty Areas:

- Office of Aviation System Planning
- Office of Airports
- Office of Technical Services & Programs
- Other Specialty Areas:
  - Funding for Grants & Loans
  - Aviation Noise
  - Environmental Review
  - Legislative News & Information



# *Division of Aeronautics*

## *Mission and Goals*

- Foster development to improve the California air transportation system throughout the State
- Promote aviation safety while preserving the environment
- Introduce context-sensitive, sustainable solutions



# *State, Federal and Other Aviation Partners*

## **State:**

- Department of Education (DOE)
- Department of Fish and Game (DF&G)
- California Energy Commission (CEC)
- Governor's Office of Planning and Research (OPR)

## **Federal:**

- Federal Aviation Administration (FAA)
- U.S. Department of Defense (DOD)
- U.S. Department of Agriculture (USDA) – Wildlife Services
- U.S. Department of Transportation (USDOT), Transportation Research Board (TRB) – Airport Cooperative Research Program (ACRP) research studies and reports

## **Private Non-Government Organizations:**

- National Association of State Aviation Officials (NASAO)
- National Business Aircraft Association (NBAA)
- Airplane Owners & Pilots Association (AOPA)
- Association of California Airports (ACA)
- California Airports Council (CAC)



# Defining the Role of Aeronautics

## Federal Aviation Administration (FAA):

- Certify and perform safety compliance inspections of Part 139 Commercial Service Airports
- Manage FAA Airport Improvement Program (AIP) funding grants for National Plan of Integrated Airport Systems (NPIAS)
- Regulate airspace, airport security, aircraft, pilots, and aircraft mechanics

## State of California (Caltrans):

- Issue airport and heliport permits and conduct permit compliance safety inspections
- Site evaluation of proposed state buildings, public schools and community colleges
- Provide airport sponsors grants and loans in support of General Aviation from the California Aid to Airports Program (CAAP)
- Provide technical expertise in the areas of engineering, land use, aircraft noise, environment and planning as related to aviation

## Airport Sponsor:

- Facility Owner/Operator
- Maintenance
- Provide local matching funds for FAA AIP grants
- Provide for operational airport safety





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\* On Limited Term  
Assignment



April 2014





**Division of Aeronautics**  
 Gary Cathey, Chief  
 (916) 654-5470

**Airport Noise Program & Environmental Review**  
 Philip Crimmins  
 (916) 654-6223

- ❖ Administer California airport noise regulations
- ❖ Review and comment on environmental documents for airport related local developments
- ❖ Develop & Maintain the Caltrans Fleet Plan, including Forecasting Future Rolling Stock Acquisition, Fleet Management & Maintenance Facility needs

**Resource Management**  
 Sanaz Javadinejad  
 (916) 654-4389

- ❖ Administer operating and capital budgets
- ❖ Administrative and personnel activities support

**Grants and Loans**  
 Bambi Jake  
 (916) 654-4718

- ❖ Manage grants and loans to airports for capital improvement projects

**Office of Airports**  
 Jeff Brown, Chief  
 (916) 654-4565

- ❖ Conduct public-use airport/heliport and hospital heliport safety and permit compliance inspections
- ❖ Under Federal Aviation Administration contract, conduct inspections and update Airport Master Records for specified public-use airports
- ❖ Review and assess new, amended, and corrected airport/heliport permit applications, including plans check/ approval, site visits, final permit inspections, and issuing of permits
- ❖ Evaluate proposed K-12 school, Community College, and State building sites within 2-nautical miles of an airport
- ❖ Manage the Helicopter Landing Authorization program for evaluation and authorization of helicopter landings within 1,000 feet of K-12 schools
- ❖ Host and maintain the hospital heliport data plates information system
- ❖ Oversee development of and updates to the California aeronautical chart
- ❖ Work with federal, state and local agencies on facility, airspace, and other aviation matters
- ❖ Assist and guide current and prospective airport/heliport owners, managers, and consultants with permitting, regulatory, and other aviation issues
- ❖ Respond to State aeronautics-related requests and questions from the public

**Office of Aviation Planning**  
 Terry Barrie, Chief  
 (916) 654-4151

- ❖ Develop State aviation planning policies and participate in the development of Federal planning policies
- ❖ Participate in intermodal planning and regional aviation system planning with cities, counties, MPOs, RTPAs and various Caltrans Divisions and Districts statewide
- ❖ Review, comment and develop guidelines for aviation-related activities in MPO's and RTPA's Regional Transportation Plans, Overall Work Programs, and cities and counties airport master plans
- ❖ Update California Aviation System Plan elements; Develop and publish Airport Land Use Planning Handbook; review and comment on Airport Land Use Compatibility Plans (ALUCPs) and city and county land use decision override letters regarding the ALUCP
- ❖ Analyze aviation's influence on the State's economy
- ❖ Aviation liaison for Caltrans Divisions including aviation-related research activities, transportation information, and goods movement
- ❖ Pursue State and Federal grants to facilitate aviation system advancement
- ❖ Collect and disseminate aviation statistics
- ❖ Analyze and monitor Federal and State aviation legislation

**Office of Technical Services**  
 Lee Provost, Chief\*  
 (916) 654-3775  
 \*On Limited Term Assignment

- ❖ Develop the statewide Capital Improvement Plan (CIP) for aviation needs and provide airport sponsor guidance
- ❖ Prepare and Manage the State Aeronautics Program
- ❖ Provide engineering assistance to local governments on airport capital improvement projects under the California Aid to Airports Program
- ❖ Review or manage State general aviation loans and Acquisition & Development grants
- ❖ Develop and manage federal grant contracts awarded from the Federal Aviation Administration Airport Improvement Program to support general aviation
- ❖ Manage Airport IQ System Management database and provide technical assistance to airport sponsors to update airport CIP project lists
- ❖ Conduct public meetings to share information with stakeholder groups in conjunction with Federal Aviation Administration, the Association of California Airports, and others
- ❖ Evaluate land use compatibility and proposed school sites near airports by developing site specific maps using AutoCAD
- ❖ Maintain and update the Airport Pavement Management System that identifies needs and estimates capital outlay costs



# *Division Core Functions*

## Aeronautics' General Internal Functions:

- Aviation Land Use, Environmental and System Planning, Airport Safety Compliance Inspections, Airport Project Funding & Engineering, and Aircraft Noise, manage one loan and three grant programs

## Oversee safety at a variety of permitted aeronautical facilities (798)

- 246 Public-use airports (30 commercial & 216 general aviation)
- 65 Special-use airports
- 8 Seaplane bases
- 479 heliports (151 hospital heliports, 49 police heliports and 36 fire heliports & 243 corporate, commuter or privately owned heliports)

## Leverage Federal Aviation Administration Airport Improvement Plan (AIP) Grants with State AIP Matching Grants

- FAA AIP Grants pay up to 95 percent of project cost (\$238 M, FY 2010/11)
- State AIP Matching Grants pay 2.5 percent of the federal AIP Grant (\$487,476, FY 2010/11)
- FAA Reauthorization caused the FAA 2012 AIP Grant amount to decrease from 95 to 90 percent; the State AIP Match Grant amount increased from 2.5 to 5.0 percent (Approved by CTC in May 2012).

## Provide airport sponsors aeronautical expertise and technical assistance

- Planner, engineer and inspector teams are integral to addressing the State's aviation issues



# *Why Aviation is Important to California*

## Aviation is vital for California!

- Provides for commerce centers that are vital for the movement of goods and people
- Contributes nearly 9 percent of California's employment and output – direct and indirect spending:
  - Contribution to the U.S. Gross Domestic Product: \$154.7 billion (4.8 percent)
  - Contribution to the U.S. employment: 1.1 million jobs (5.5 percent)
  - 62,606 active licensed pilot community (11 percent of U.S. total)
  - 34,844 registered aircraft (10 percent of U.S. total)



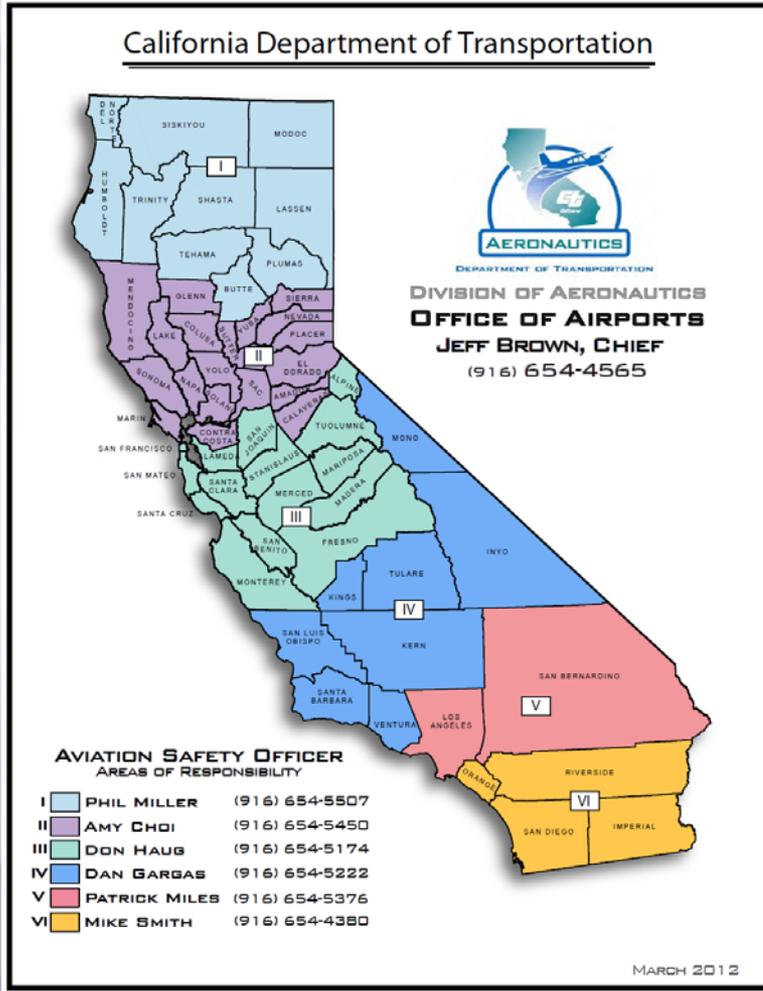
# *Why Aviation is Important to California*

*(cont'd)*

- Airports facilitate international and domestic trade
- They are necessary for “just-in-time” production and delivery
- Each airport is an essential component of the State’s emergency response and disaster recovery operations
- Aviation provides convenient and affordable air travel for tourists, as well as access for companies to conduct business in your local community



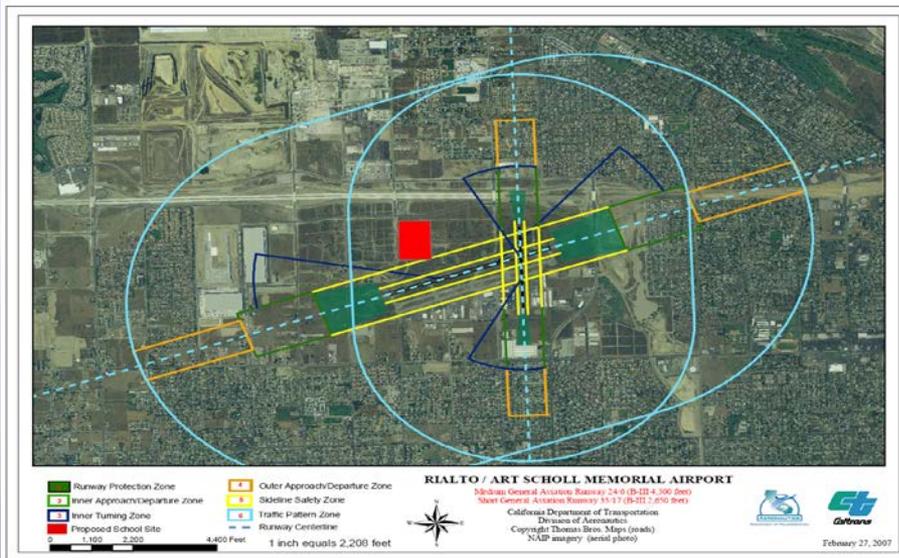
# Office of Airports



# State Buildings and School Site Evaluations

## Airport Safety Compatibility Zones

Pursuant to State law, the Division of Aeronautics is required to evaluate proposed K–12 schools (Education Code (EC) 17215), Community Colleges (EC 81033), and State building sites (Public Utilities Code (PUC) 21655) within two nautical miles of an existing runway as well as any new runway that is identified in an adopted airport layout plan.



### Planning:

California Airport Land Use Planning Handbook  
Consideration and evaluation to overall Community Planning  
Consistency with adopted airport land use plans  
Communication with the planning commission

### Flight Paths:

Minimize disruptive noise and provide for adequate safety evaluations

# *Aviation & Environmental Review*

Review projects submitted from State Clearinghouse (IGR/CEQA)

- Analyze project from an aviation perspective and comment on potential environmental impacts, such as effects relating to aircraft flight, aircraft noise, and public safety

*How you can help Aeronautics identify potential impacts to aviation?*

**Contact us with your concerns whenever you think there might be an environmental issue within 2-nautical miles of an airport!**

**Philip Crimmins, Environmental Review**

**(916) 654-6223**



# *Aircraft Noise*

- Legislation passed in 1969 that is part of the Public Utilities Code (PUC) mandates regulation of aircraft noise at airports to resolve existing noise problems and prevent the development of new problems
- County government determines which airports must meet noise standards
  - 10 airports statewide (9 air carrier and 1 general aviation)
  - District 6: No commercial service or general aviation airports have been determined to have a noise problem by their respective local County Board of Supervisors.
- Department noise activities include:
  - Review and approval of aircraft monitoring plans
  - Assess airports' progress toward achieving standards
  - Consider applications for a variance from standards

For more information, we invite you to visit the Aviation Noise Program website:

<http://www.dot.ca.gov/hq/planning/aeronaut/avnoise.htm>





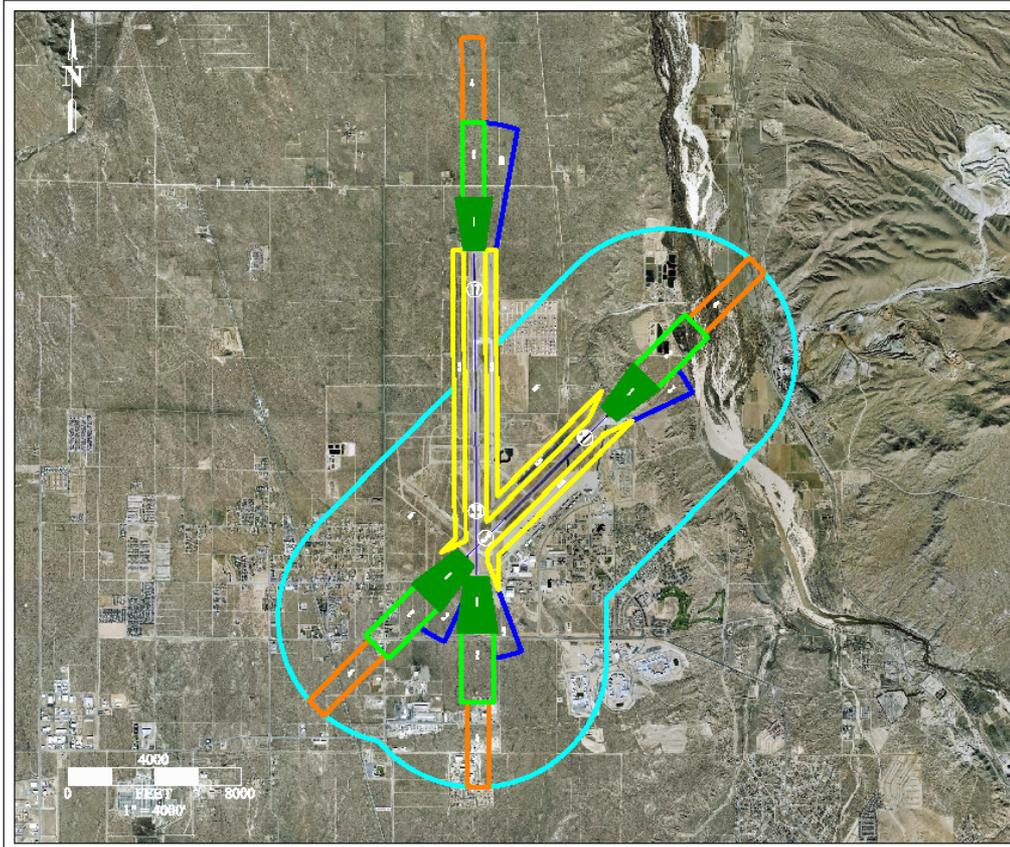
# Office of Technical Services & Programs

- Provide engineering assistance (internal and external)
- Review and manage State Acquisition & Development (A&D) grants
- Develop the Capital Improvement Plan (CIP) & 3-year Aeronautics Program based on the CIP
- Prepare School Site Evaluation Maps, Land Use Incompatibility Maps and AutoCAD drawings for Airports
- FAA Contract Administration and Management (e.g. Asphalt Pavement Management System)
- Manage Caltrans Airport Projects from Programming to Construction Close-out



# Proposed School Site Evaluations

## Airport Safety Zones Map



### Southern California Logistics Airport (VCV)

#### Large Air Carrier Runway (17)

Length: 15,050'  
 RWY 17: Approach Visibility - 3/4 Mile  
 Runway Protection Zone: 1000' x 1750' x 2500'

#### Long General Aviation Runway (35)

Length: 15,050'  
 RWY 35: Approach Visibility - Visual  
 Runway Protection Zone: 1000' x 1750' x 2500'

#### Long General Aviation Runway (3/21)

Length: 9,138'  
 RWY 3: Approach Visibility - Visual  
 Runway Protection Zone: 1000' x 1750' x 2500'  
 RWY 21: Approach Visibility - Visual  
 Runway Protection Zone: 1000' x 1750' x 2500'

- 1 Runway Protection Zone
- 2 Inner Approach/Departure Zone
- 3 Inner Turning Zone
- 4 Outer Approach/Departure Zone
- 5 Sideline Safety Zone
- 6 Traffic Pattern Zone
- Runway

Notes:  
 San Bernardino County  
 34-35-50.835N 117-22-58.789W  
 Drawing based on:  
 California Airport Land Use Planning Handbook  
 Google Earth Pro Imagery  
 AutoCad Map 3D 2009  
 September 2009

Depicts runway safety zones & air traffic pattern



# Operational Safety Discrepancy Resolution

## Example

**Pavement Condition Index: Very Poor (18)**



**California Pines Airport, Modoc County**



**Result:**

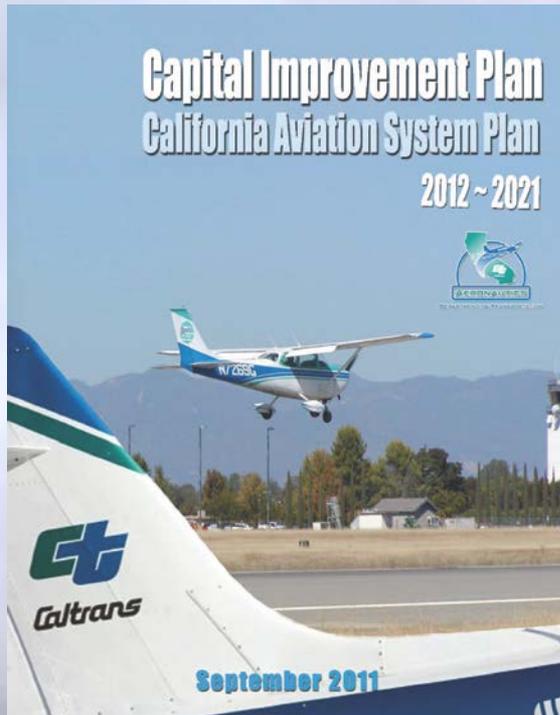
***Safer and Smoother landings and take-offs!***



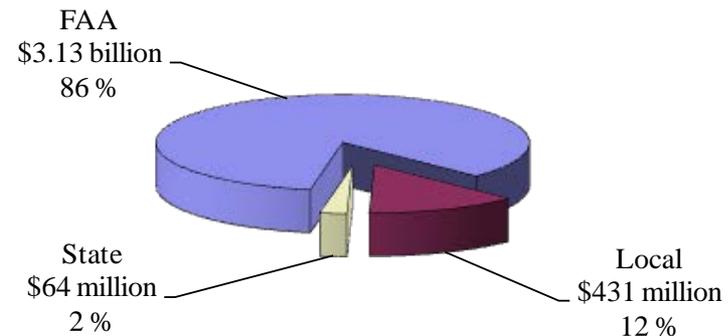
**Runway Rehabilitation Project Description:**

- Pulverized, reshaped, graded and compacted into sub-base
- Widened 4,250' runway to 60 feet, including a 2.5" hot-mix asphalt overlay and new runway markings

# California Aviation System Plan 2012-2021 Capital Improvement Plan



## Federal, State, Local Split for Requested Funds Total: \$3.62 billion



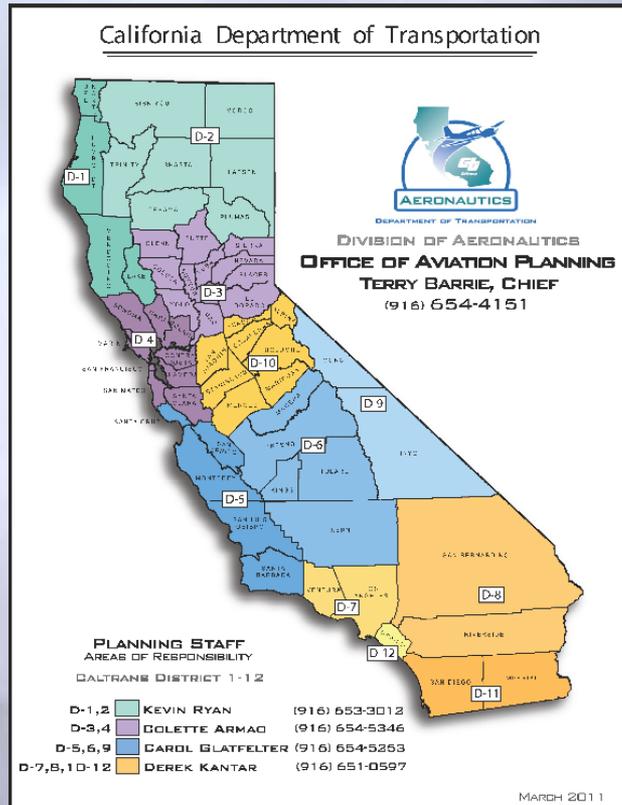
# *Airport Funding*

- State Aeronautics Account
  - Annual revenue approximately \$7 million from aviation fuel excise taxes (Avgas 18¢/gal. and Jet fuel 2¢/gal, excludes commercial jet fuel sales)
- Division Support (\$3 million )
- Annual Credit Grant: \$10,000/year to 149 GA airports (\$1.49 million)
- Airport Improvement Program (AIP) Matching Grants (\$1.65 million)
- Acquisition and Development (A&D) Grants (\$1.00 million)
  - 90 percent State funded Airport Land Use Compatibility Plans (ALUCP), safety, and pavement preservation projects, require a 10 percent local match
- Airport Loan Program (low interest loans, current rate = 3.288 percent)
  - For revenue generating projects (e.g. hangar construction and aviation fuel facilities)
- *State Dollars for Your Airport*
  - Available from the Aeronautics web site:  
[http://www.dot.ca.gov/hq/planning/aeronaut/documents/grants\\_and\\_loans/StateDollarsForAirport.pdf](http://www.dot.ca.gov/hq/planning/aeronaut/documents/grants_and_loans/StateDollarsForAirport.pdf)



# Office of Aviation Planning Staff

## Systems Planners



## Land Use Planners



# *Compatible Development*

**Fresno Yosemite International Airport (FAT)**

**Fresno County**



# *Incompatible Development*

Santa Monica Airport (SMO)

Los Angeles County



# *Aviation Planning Work Products*

- CASP General Aviation System Needs Assessment 2010
- CASP Policy Element 2011
- California Airport Land Use Planning Handbook 2011
- California General Aviation Airports: Links to Vitality (video)
- Public Use Airports and Military Airfields Map (2012)



# *Aviation Planning Update*

## ➤ **Wildlife Hazard Assessments Underway**

- 10 airports in Los Angeles basin; 5 in S.F. Bay Area
- 100% FAA funded. Goal is to understand then minimize wildlife strike hazards with aircraft.

## ➤ **Airport Economic Study Underway**

- Exploring the value of the 5-types of public use airports in the State and how to connect them to their communities via Smart Growth principles. Study will support CIB concepts.

## ➤ **Emergency Management**

- Working with Cal EMA to create an Air Operations Branch consistent with FEMA's Incident Command System protocols.



# *Where Aviation should be considered: Advance Planning Programs*

- California Transportation Plan
- California Interregional Blueprint
- Climate Action and Adaptation Program
- Smart Mobility Framework
- Complete Streets
- Regional Blueprint Plan / Sustainable Communities Strategies
- Project Initiation Documents (PIDs)



# *Where Aviation should be considered: Advance Planning Programs (cont'd)*

- Highway Planning and Design!
- Regional Transportation Plans and Overall Work Programs
- Transit Connectivity
- Local Development – Intergovernmental review (LD-IGR)
- Public Participation
- Goods Movement
- Public Private Partnerships Program

## General Reminder:

*No Aeronautics representatives are in any Caltrans districts, so please forward all aviation/airport issues to HQ*



# *Role of Transportation Planners*

## *Caltrans has no Aviation Planners in the Districts*

- Airport Land Use Commissions serve as the State's primary aviation land use planners, whose actions protect pilots, airports, and the surrounding communities
- You are the “first responders” for protecting and promoting aviation statewide, through Caltrans planning!

## *Know Your Role as a Caltrans Planner*

- Know when a new community development might impact an airport, such as a wind farm or a major transportation project (Reference: Highway Design Manual p. 207)
- If a project lies within 2-nautical miles of an airport, Alert the Division of Aeronautics
- Do not assume the role of an Airport Land Use Commission (ALUC)
- Airport Land Use Compatibility Plans (ALUCP) out rank General Plans or Regional Transportation Plans, and GP and RTP must be consistent with the ALUCP



