Final EA/EIR

Improvements at Fresno Yosemite International Airport (FAT)

Volume II

Fresno Yosemite International Airport

City of Fresno

FRESNO YOSEMITE
INTERNATIONAL AIRPORT

February 2011

Final
Environmental Assessment and Environmental Impact Report

IMPROVEMENTS AT FRESNO YOSEMITE INTERNATIONAL AIRPORT (FAT)
Fresno, California
Volume II
Appendices

Prepared for:
U.S. Department of Transportation
Federal Aviation Administration

This environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official

City of Fresno
February 2011

_____
Responsible FAA Official

Prepared by:

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Post Montgomery Center
One Montgomery Street
Suite 900
San Francisco, CA 94104

For further information:

Douglas Pomeroy
Environmental Protection Specialist
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Federal Aviation Administration
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City of Fresno
Department of Airports
4995 E. Clinton Way
Fresno, CA 93727
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APPENDIX A
AGENCY AND PUBLIC COORDINATION

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

The Final Environmental Assessment (EA) distribution letter advised commenters on the Final EA that:

"Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so."

APPENDIX A1
FINAL SCOPING REPORT

Final Scoping Report

Joint Environmental Assessment (NEPA) and Environmental Impact Report (CEQA) for the Master Plan Update

Fresno Yosemite International Airport

Federal Aviation Administration
and City of Fresno

December 2005

Environmental Assessment – Environmental Impact Report
for the
Master Plan Update at Fresno Yosemite International Airport

FINAL
SCOPING REPORT

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SECTION 1.0

NOTICES AND PRESENTATIONS

SECTION 1.1

NOTICE OF INTENT/NOTICE OF PREPARATION (NOI/NOP)

NOTICE OF INTENT (NEPA)/NOTICE OF PREPARATION (CEQA)
FOR THE
ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT
REGARDING THE MASTER PLAN UPDATE
AT THE FRESNO YOSEMITE INTERNATIONAL AIRPORT (FAT)

TO: **Governmental/Regulatory Agencies and Interested Public Participants (refer to distribution list)**

FROM: **Federal Aviation Administration and the City of Fresno, California**

LEAD NEPA AGENCY:
Federal Aviation Administration
Western Pacific Region
San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010-1303
Fax: (650) 876-2733
Email: Aimee.Kratovil@faa.gov
Contact: Aimee Kratovil
Environmental Protection Specialist

LEAD CEQA AGENCY:
City of Fresno - Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Fax: (559) 498-5549
Email: Kevin.Meikle@fresno.gov
Contact: Kevin Meikle
Airports Planning Manager

SUBJECT: **Notice of Intent/Notice of Preparation (NOI/NOP) to prepare a joint Environmental Assessment/Environmental Impact Report (EA/EIR); Project No. 10136**

Summary: The Federal Aviation Administration (FAA) and the City of Fresno, CA are issuing this notice to advise the governmental/regulatory agencies and general public that a joint EA/EIR will be prepared to solicit input regarding the proposed projects under the Fresno Yosemite International Airport Master Plan Update. To ensure that all significant issues related to the Master Plan Update are identified, one (1) governmental/regulatory agency scoping meeting and one (1) general public scoping meeting will be held on the same day.

FAA will be the Lead Federal Agency, while the City of Fresno will be the Lead State Agency for the preparation of the EA/EIR regarding the action identified above. We need to know the views of your governmental/regulatory agency or public participant interests as to the scope of the environmental/social information that is germane to the proposed projects. Governmental/regulatory agencies will need to use the EA/EIR that is being prepared when considering your permit or other approval of the proposed projects. There will be additional opportunities to comment on the proposed projects at a later date. Preliminary comments on the scope of this EA/EIR should be submitted in writing to the addresses above and must be received no later than 5:00 P.M. Pacific Standard Time, on July 29, 2005.

Notice of Scoping Meetings: All interested parties are invited to attend their respective meeting on the scope of the EA/EIR.

- Governmental/Regulatory Scoping Meeting – Thursday, July 21, 2:00 – 4:00 P.M., Holiday Inn, 5090 East Clinton Way, Valley Center Room, Fresno, CA 93727

- General Public Scoping Meeting – Thursday, July 21, 5:00 – 7:00 P.M., Holiday Inn, 5090 East Clinton Way, Valley Center Room, Fresno, CA 93727

Reference: California Code of Regulations, Title 14 (CEQA Guidelines) Sections 15082 (a), 15103, 15375

Project Title: Fresno Yosemite International Airport Master Plan Update Environmental Assessment/Environmental Impact Report.

Project Location: Fresno Yosemite International Airport (FAT or Airport) generally lies east of State Route 168 (SR-168) and northeast of State Route 180 (SR-180), in the City of Fresno, CA. The City of Fresno is located in the San Joaquin Valley in central California. FAT is bounded by Dakota Avenue on the north, Clovis Avenue on the east, McKinley Avenue on the south, and Chestnut Avenue on the west. The Airport is accessed via Clinton Way from McKinley Avenue. Downtown Fresno and State Route (SR-99) lie approximately 5 miles southwest of FAT.

Project Background: FAT was developed by the U.S. Army Air Corps in the early 1940s as Hammer Field, with one northwest/southeast oriented runway and parallel taxiway systems. The U.S. Army Air Corps deactivated the base in late 1945 and the City of Fresno assumed operation in 1946 and adopted the name Fresno Air Terminal (FAT), which remains as the official airport code today. The original northwest/southeast runway, now identified as Runway 11L/29R, was extended to its current length between 1956 and 1968. A second runway, 11R/29L, was first constructed in 1956 and was extended to its current length in 1987. Currently, Runway 11L/29R is 9,227 feet long, 150 feet wide, and is equipped with a Category IIIb Instrument Landing System. Runway 11R/29L is 7,206 feet long, 100 feet wide, and has non-precision approach capabilities. Both runways are supported by full-length parallel taxiways on the north and south sides. An FAA Airport Traffic Control Tower is located on the south side of the Airport and provides 24-hour traffic control services. The City of Fresno renamed the airport to Fresno Yosemite International Airport in 1996, however, is still referred to as FAT.

FAT has a field elevation of 336 feet above mean sea level and accommodates numerous types of general, commercial, air-cargo, and military aircraft operations. Currently, the Airport is served by 6 commercial passenger carriers including Allegiant Air, American, American Eagle, Delta Connection (operated by Skywest), America West Express (operated by Mesa), Horizon, and United Express (also operated by Skywest) which serve slightly more than 1 million annual passengers. Frontier Air has recently agreed to begin service (operated by Horizon) starting August 31, 2005, and Mexicana is also considering international service starting in the Spring of 2006. Air cargo contributes to the airport by transporting more than 15,000 tons annually as belly cargo on passenger airlines, and main deck cargo on feeder carriers and major commercial cargo companies. The current airlines that provide air cargo include Ameriflight, Union Flights, Airborne (operating on behalf of DHL), Federal Express, UPS and some smaller air taxi/commuter operators.

Approximately 175 corporate and privately owned aircraft are based at FAT and utilize various aircraft hangars and outdoor tie-downs. Transient aircraft parking is also available. Additionally, there are 3 major Fixed Base Operators as well as the U.S Forest Service, the California Department of Forestry, the California Highway Patrol, the Fresno County Sheriff, and the City of Fresno Police Department operating out of the Airport. Furthermore, FAT is home to 3 military aviation units including the 144th Fighter Wing of the California Air National Guard, the California Army National Guard Aviation Classification and Repair Activity Depot (AVCRAD), and the U.S. Marine Corp Reserve Air Defense Activity Unit. All told, approximately 160,000 total aircraft operations occur annually at FAT.

The terminal and concourse building was originally completed in 1962 and was remodeled in 1978 1993, and 1997. A major renovation and upgrade of the concourse building was completed in late 2002, with a new two-level structure including four passenger-loading bridges, an expanded food court, business center, and children's play area. The terminal roadways were reconfigured to provide additional traffic

lanes and parking was increased to accommodate more than 2,000 short and long-term spaces. Since this time period, FAT completed several projects such as runway and taxiway repaving and others smaller projects to maintain safe operations at the Airport.

The most comprehensive public environmental information regarding FAT was compiled in the Fresno Air Terminal Airport and Environs Plan (the Plan) that was adopted in September 1992, and amended and adopted in July 1997. These documents contain a summary of pertinent data in a consolidated format. Since then, some minor environmental documentation has been done at the Airport in the form of Categorical Exclusions and Negative Declarations, primarily in checklist format. The Airport has also generally been discussed in other environmental documents such as the General Plan Update EIR.

Project Purpose: This Master Plan Update EA/EIR is intended to provide a comprehensive view of proposed future development including an understanding of the existing conditions that have changed in recent years at FAT. The analysis will include a review of potential effects on the environment from the proposed projects in accordance with NEPA and CEQA regulations. The preferred alternative will be based on a thorough analysis of issues including safety, national policy, efficiency, economic, social, and environmental impacts.

Proposed Projects: The proposed projects to be examined in the EA/EIR will include the following primary airport improvements:

- Consolidated Rental Car Facility
- Rehabilitate Taxiway B4 and Construct C4
- Rehabilitate Taxiway C
- Rehabilitation of HPTWC
- Rehabilitate AC/PCC Concourse Apron
- Rehabilitate, widen, and Extend Runway 11R-29L
- Construct Terminal Parking Garage

Alternatives: The following alternatives will be evaluated in the EA/EIR to address short-term projects in 2010 and long-term projects in 2020. The NEPA analysis in the EA portion of the document will focus primarily on the short-term projects and discuss long-term projects under a cumulative impact section. The CEQA analysis will review all the preferred projects proposed in the master planned out to 2020. Additional reasonable and feasible alternatives may be evaluated in the EA/EIR as a result of the scoping process.

<u>Alternative 1 - Proposed Projects:</u> This alternative includes all of the items listed above under the proposed projects. This alternative consists of extending and rehabilitating Runway 11R/29L (secondary runway) from 7,206 feet to 8,000 feet long and widening from 100 feet to 150 feet. The extension can be located on either end of the runway. Also included in this alternative is the addition of a precision instrument approach system to Runway 11R/29L; improvements to the taxiway system to minimize runway occupancy times; establishment of a terminal support area to include the relocation/expansion of kitchen flight areas, airport maintenance, etc.; relocation of the rental car facilities to a new area west of the baggage claim; rehabilitation of several taxiways and apron areas and consideration of constructing a new terminal parking garage over the existing parking area.

<u>Alternative 2 - No Action:</u> This alternative consists of not implementing any elements of the Master Plan Update. No new development items identified in the Master Plan Update would be constructed or implemented in the future analysis years.

Alternative 3- Develop Another Airport in the Region: The City of Fresno also owns and operates Fresno-Chandler Executive Airport, which is located approximately 1.5 miles southwest of downtown Fresno (across SR-99) and 6.5 miles southwest of FAT. Currently, Fresno-Chandler Executive Airport has two runways of nearly equal length (Runway 12L/30R is 2,815 feet long and Runway 12R/30L is 2,972 feet long) and is utilized as a general aviation facility. Sierra Sky Park Airport is located on the northern edge of the City of Fresno, is approximately 8 miles northwest of FAT, and has one runway that is 2,920 feet long. This alternative considers further developing and /or improving either of these airports instead of FAT.

Alternative 4 - Use Alternative Modes of Transportation: This alternative would utilize other types of transportation modes such as rail (including high-speed), inter-city bus, and automobiles to transport people, goods, and services to transport visitors in and out of the area.

Alternative 5 - Develop a New Airport in the Region at a Different Site: This alternative consists of construction of a new airport facility instead of further developing the existing FAT airport.

Probable Environmental Effects: Construction of the proposed projects are expected to have minimal short-term environmental effects on its own, all of which are anticipated to be mitigated to a less than significant level. However, operations associated with the proposed projects are anticipated to result in cumulative and induced impacts that will need to be fully evaluated in the EA/EIR. These impacts are anticipated to be related to air quality, noise, traffic/transportation, and hydrology/water quality. At this time, all foreseeable impacts are expected to be mitigated to less than significant levels with mitigation measures identified in the EA/EIR.

Submitting Comments: Comments and suggestions are invited from Federal, State and local agencies, and other public participants to ensure that the full range of issues related to the proposed projects and the alternatives are addressed and all significant issues are identified. Comments on the scope of the EA/EIR should be submitted in writing to the addresses listed above by no later than 5:00 P.M. Pacific Standard Time, on July 29, 2005. Your names will be added to the agency/public participation list for the project.

6/24/05	6/24/05
Date	Date
Aimee Kratovil	Kevin Meikle
Environmental Protection Specialist	Airports Planning Manager
Federal Aviation Administration	City of Fresno - Airports

Source:
Expedia Maps, 2004

N

Not to Scale

PROJECT VICINITY AND LOCATION MAP

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno Yosemite International Airport,
California

June 2005
28066717.03001

URS

FIGURE 1

6/24/05 vsa ..\28066717 Fresno Airport \F1_pvlm.cdr

SECTION 1.2

NOI/NOP MAIL DISTRIBUTION LIST

FRESNO YOSEMITE INTERNATIONAL AIRPORT
NOI / NOP MAIL DISTRIBUTION LIST

FEDERAL AGENCIES		
David Durham Natural Resources Conservation Service U.S. Department of Agriculture 4625 West Jennifer Avenue Suite 125 Fresno, CA 93722	Kevin Roukey Army Corps of Engineers Central Valley Office 1325 J Street Sacramento, CA 95814-2922	Bill Luce Area Manager Bureau of Reclamation Department of the Interior South-Central California Office 1243 N Street Fresno, CA 93721-1813
Environmental Protection Agency Region IX Air and Toxics Program 75 Hawthorne Street San Francisco, CA 94105	Amy Kratovil Federal Aviation Administration 831 Mitten Road Burlingame, CA 94010	Peter Hong Federal Aviation Administration 831 Mitten Road Burlingame, CA 94010
US Fish & Wildlife Services Sacramento Fish & Wildlife Office 2800 Cottage Way, W-2605 Sacramento, CA 95825-1846		
STATE AGENCIES		
Cynthia Marvin, Chief AQTP Branch CAL-EPA Air Resources Board PO Box 2815 Sacramento, CA 95812-2815	Tom Kovac Department Toxic Substances Control – Region 1 CAL-EPA 1515 Tollhouse Road Clovis, CA 93612	Marlyn Barragan Northern California Cleanup Operations Branch CAL-EPA Department of Toxic Substances 10151 Croyden Way, Suite 3 Sacramento, CA 95827-0806
Joe Garcia State Fire Marshal California Department of Forestry and Fire Protection 1234 E Shaw Avenue Fresno, CA 93710	Marc Birnbaum Caltrans District 6 PO Box 12616 Fresno, CA 93778	Moses Stittes Caltrans District 6 PO Box 12616 Fresno, CA 93778
Roberto Buendia Caltrans Division of Aeronautics 1120 N Street, Rm 3300, MS# 40 Sacramento, CA 95814	California Wildlife Conservation Board Department of Fish & Game 1807 13th Street #103 Sacramento, CA 95814-7137	Office of Grants and Local Services Department of Parks & Recreation PO Box 942896 Sacramento, CA 94296-0001
Kevin Forester California State Parks – San Joaquin District PO Box 205 Friant, CA 93626	Office of Emergency Services Region V 2550 Mariposa Street, Room 181 Fresno, CA 93721	State Water Resources Control Board PO Box 100 Sacramento, CA 95812-0100
Lisa Gymer Regional Water Quality Control Board 1685 E Street Fresno, CA 93706	Julie Vance Department of Fish & Game Region 4 1234 E Shaw Avenue Fresno, CA 93710	Hector Guerra San Joaquin Valley Air Pollution Control District 1990 E Gettysburg Avenue Fresno, CA 93726
LOCAL AGENCIES		
COUNTY OF FRESNO		

Carolina Jimenez-Hogg Assistant County Administration Officer County of Fresno 2281 Tulare Street Hall of Records #300 Fresno, CA 93721	Bernard Jimenez Development Services Manager County of Fresno 2281 Tulare Street Fresno, CA 93721	Bud Laumer Planning & Resource Analyst County of Fresno – ALUC 2220 Tulare Street, 6th Floor Fresno, CA 93721
Richard Pierce Fresno County Sheriff 2200 Fresno Street Fresno, CA 93721	Ron Peterson Fresno County Transportation Authority 2220 Tulare Street, Suite 411 Fresno, CA 93721	Jerry Lakeman or Daniel Rork Assistant District Manager Fresno Metropolitan Flood Control 5469 E Olive Avenue Fresno, CA 93727
Dale Stanton Assistant Manager Fresno Irrigation District 2907 S Maple Ave Fresno, CA 93726	Bill Stretch Fresno Irrigation District 2907 S Maple Avenue Fresno, CA 93725	Fresno County Fire Protection District 210 S Academy Avenue Sanger, CA 93657
Mike Waiczis Executive Officer Fresno County Local Agency Formation Commission 2100 Tulare Street, Suite 502 Fresno, CA 93721	Barbara Goodwin Executive Director Council of Fresno County Governments 2100 Tulare Street, Suite 619 Fresno, CA 93721	Clark Thompson Council of Fresno County Governments 2100 Tulare Street, Suite 619 Fresno, CA 93721
Renee Devere Council of Fresno County Governments 2100 Tulare Street, Suite 619 Fresno, CA 93721	Kathleen Boyer Fresno County Office of Emergency Services 1221 Fulton Mall Fresno, CA 93721	
City of Fresno		
Alan Autry Mayor Mayor's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Roger Montero Deputy Mayor Mayor's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Cheryl Bassett Scheduling Coordinator Mayor's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600
Tom Boyajian Council Member, District 1 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Regina Peters Council Assistant, District 1 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Brian Calhoun Council Member, District 2 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600
Ann Kloose Council Assistant, District 2 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Cynthia Sterling Council Member, District 3 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Luis Mendoza Council Assistant, District 3 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600
Larry Westerlund Council Member, District 4 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Rosalyn Belluomini Council Assistant, District 4 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Mike Dages Council Member, District 5 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600

Sal Quintero Council Assistant, District 5 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Jerry Duncan Council Member/Redevelopment Agency Chair, District 6 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Ginger Barrett Council Assistant, District 6 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600
Henry T. Perea Council Member, District 7 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Sherry Vargas Council Assistant, District 7 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Andy Souza City Manager City Manager's Office 2600 Fresno Street, Room 2064 Fresno, CA 93721-3601
Jon Ruiz Assistant City Manager City Manager's Office 2600 Fresno Street, Room 2064 Fresno, CA 93721-3601	Russ Widmar, AAE Director of Aviation Department of Airports 4995 E Clinton Way Fresno, CA 93727	Nick P. Yovino Director Planning & Development Dept. 2600 Fresno Street, Room 3065 Fresno, CA 93721-3604
Darrell Unruh Planning & Development Dept. City of Fresno 2600 Fresno Street Fresno, CA 93721	David Healey Public Works Director Department of Public Works 2600 Fresno Street, Room 4016 Fresno, CA 93721-3615	Mike Kirn Assistant Public Works Director Department of Public Works 2600 Fresno Street, Room 4016 Fresno, CA 93721-3615
Fred Burkhard Director Economic Development Dept. City of Fresno 2600 Fresno Street, Room 3076 Fresno, CA 93721	Superintendent Fresno Unified School District 2309 Tulare Street Fresno, CA 93721	Joe Alvarado Interim Administrator Fresno Unified School District 2309 Tulare Street Fresno, CA 93721
Superintendent Central Unified School District 4605 N Polk Fresno, CA 93722		
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Mayor Jose "Joe" Flores City of Clovis 1033 5th Street Clovis, CA 93612	Mayor Pro Tem City of Clovis 1033 5th Street Clovis, CA 93612	Councilmember Harry Armstrong City of Clovis 1033 5th Street Clovis, CA 93612
Councilmember Nathan F. Magsig City of Clovis 1033 5th Street Clovis, CA 93612	Councilmember Patricia Wynne City of Clovis 1033 5th Street Clovis, CA 93612	Kathleen A. Millison City Manager's Office City of Clovis 1033 5th Street Clovis, CA 93612
Alan Weaver Public Works/Utilities City of Clovis 1033 5th Street Clovis, CA 93612	John Wright Director, Planning Division City of Clovis 1033 5th Street Clovis, CA 93612	David Fey Senior Planner City of Clovis 1033 5th Street Clovis, CA 93612
John Wright, Director Planning & Development Services City of Clovis 1033 5th Street Clovis, CA 93612	Terry Bradley Superintendent Clovis Unified School District 1450 Herndon Avenue Clovis, CA 93611-0599	Walt Byrd Assistant Superintendent Clovis Unified School District 1450 Herndon Avenue Clovis, CA 93611
OTHER: UTILITIES		

Safety and Health Division Burlington Northern Santa Fe Railroad 4006 East Vine Avenue Fresno, CA 93725-2027	Don Triplett PG&E Electricity, Building, & Land Services 650 O Street, Bag 19 Fresno, CA 93760-0001	Randy Walker PG&E Land Services 650 O Street, Bag 23 Fresno, CA 93760-0001
Jim Smith Industry and Public Projects Union Pacific Railroad 10031 Foothills Blvd. Roseville, CA 95747		
OTHER: ENVIRONMENTAL GROUPS		
San Joaquin River Conservancy 5469 E Olive Avenue Fresno, CA 93727	San Joaquin River Parkway & Conservation Trust 1550 E Shaw Avenue, Suite 114 Fresno, CA 93710	Sierra Club Tehipite Chapter PO Box 5396 Fresno, CA 93755
Roberta Ray Coon Sierra Resource Conservation District 3126 Fine Street Clovis, CA 93613		
Other: Economic Development Groups		
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Virginia Gonzalez Downtown Association of Fresno 950 Fulton Mall, Suite, Suite 102 Fresno, CA 93721	David Spaur President & CEO Economic Development Corp. 906 N Street, Suite 120 Fresno, CA 93721	Keith Kelley Fresno West Coalition for Economic Development 41 N Shelly Avenue Fresno, CA 93727
Other: Homeowners and Neighborhood Groups		
Bullard Area Homeowners PO Box 5700 Fresno, CA 93755-5700	Fig Garden Homeowners Association PO Box 5796 Fresno, CA 93755	Sierra Sky Park Homeowners Association 7081 N Marks, Box 104-250 Fresno, CA 93711
Sunnyside Fancher Creek Association 675 N Burgan Avenue Fresno, CA 93727	Sunnyside Property Owners Association PO Box 8096 Fresno, CA 93747	Woodward Lakes Homeowners Association 10250 N Westshore Drive Fresno, CA 93720
Woodward Park Homeowners Association C/O Vince Correll 840 E Cole Avenue Fresno, CA 93720	Joni Johnson Board Director Fresno Neighborhood Alliance P.O. Box 5956 Fresno, CA 93755	

Last Updated: November 2005

SECTION 1.3

CALIFORNIA STATE CLEARINGHOUSE AND PLANNING UNIT NOP

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

05 JUL -5 AM 11:30

AIRPORTS DEPARTMENT

Notice of Preparation

June 27, 2005

To: Reviewing Agencies

Re: Fresno Yosemite International Airport Master Plan Update EA/EIR
SCH# 2005061150

Attached for your review and comment is the Notice of Preparation (NOP) for the Fresno Yosemite International Airport Master Plan Update EA/EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Kevin Meikle
City of Fresno
4995 East Clinton Way
Fresno, CA 93727

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2005061150
Project Title Fresno Yosemite International Airport Master Plan Update EA/EIR
Lead Agency Fresno, City of

Type NOP Notice of Preparation

Description The Master Plan Update EA/EIR is intended to provide a comprehensive view of proposed future development including an understanding of the existing conditions that have changed in recent years at the Airport. The analysis will include a review of potential effects on the environment from the proposed projects in accordance with NEPA and CEQA regulations. The preferred alternative will be based on a thorough analysis of issues including safety, national policy, efficiency, economic, social, and environmental impacts.

Lead Agency Contact

Name Kevin Meikle
Agency City of Fresno
Phone (559) 621-4536 **Fax**
email
Address 4995 East Clinton Way
City Fresno **State** CA **Zip** 93727

Project Location

County Fresno
City Fresno
Region
Cross Streets Clinton Way / McKinley Avenue
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways 168, 180
Airports Fresno
Railways ATSF
Waterways Mill Ditch
Schools
Land Use Airport
Z: Open Conservation (O), Light Manufacturing (M-1), Industrial Park Manufacturing (M-1-P).

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply

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Reviewing Agencies Resources Agency; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Parks and Recreation; Native American Heritage Commission; Department of Health Services; Office of Emergency Services; Office of Historic Preservation; Department of Forestry and Fire Protection; Department of Fish and Game, Region 4; Department of Water Resources; California Highway Patrol; Caltrans, District 6; Caltrans, Division of Aeronautics; Air Resources Board, Airport Projects

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Date Received 06/27/2005 **Start of Review** 06/27/2005 **End of Review** 07/26/2005

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

SCH# 2005061150
Project Title Fresno Yosemite International Airport Master Plan Update EA/EIR
Lead Agency Fresno, City of

Type NOP Notice of Preparation

Description The Master Plan Update EA/EIR is intended to provide a comprehensive view of proposed future development including an understanding of the existing conditions that have changed in recent years at the Airport. The analysis will include a review of potential effects on the environment from the proposed projects in accordance with NEPA and CEQA regulations. The preferred alternative will be based on a thorough analysis of issues including safety, national policy, efficiency, economic, social, and environmental impacts.

Lead Agency Contact

Name Kevin Meikle
Agency City of Fresno
Phone (559) 621-4536 **Fax**
email
Address 4995 East Clinton Way
City Fresno **State** CA **Zip** 93727

Project Location

County Fresno
City Fresno
Region
Cross Streets Clinton Way / McKinley Avenue
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways 168, 180
Airports Fresno
Railways ATSF
Waterways Mill Ditch
Schools
Land Use Airport
Z: Open Conservation (O), Light Manufacturing (M-1), Industrial Park Manufacturing (M-1-P).

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply

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Reviewing Agencies Resources Agency; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Parks and Recreation; Native American Heritage Commission; Department of Health Services; Office of Emergency Services; Office of Historic Preservation; Department of Forestry and Fire Protection; Department of Fish and Game, Region 4; Department of Water Resources; California Highway Patrol; Caltrans, District 6; Caltrans, Division of Aeronautics; Air Resources Board, Airport Projects

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Date Received 06/27/2005 **Start of Review** 06/27/2005 **End of Review** 07/26/2005

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Fresno

SCH# 2005061150

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  David Johnson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Roseanne Taylor
- [ ] **California Energy Commission**
  Environmental Office
- [x] **Dept. of Forestry & Fire Protection**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  B. Noah Tilghman
  Environmental Stewardship Section
- [ ] **Reclamation Board**
  DeeDee Jones
- [ ] **Santa Monica Mountains Conservancy**
  Paul Edelman
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 2**
  Banky Curtis
- [ ] **Fish & Game Region 3**
  Robert Floerke
- [x] **Fish & Game Region 4**
  William Laudermilk
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Tammy Allen
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section
- [x] **Dept. of Health Services**
  Veronica Rameriz
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Coachella Valley Mountains Conservancy**
- [ ] **Delta Protection Commission**
  Debby Eddy
- [x] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Ken Lewis
- [ ] **San Gabriel & Lower LA Rivers**
- [ ] **San Joaquin River Conservancy**
- [ ] **State Lands Commission**
  Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [x] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  John Olejnik
  Office of Special Projects
- [ ] **Housing & Community Development**
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Mike Eagan
- [ ] **Caltrans, District 2**
  Don Anderson
- [ ] **Caltrans, District 3**
  Jeff Pulverman
- [ ] **Caltrans, District 4**
  Tim Sable
- [ ] **Caltrans, District 5**
  David Murray
- [x] **Caltrans, District 6**
  Marc Birnbaum
- [ ] **Caltrans, District 7**
  Cheryl J. Powell
- [ ] **Caltrans, District 8**
  John Pagano
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Mario Orso
- [ ] **Caltrans, District 12**
  Bob Joseph

Cal EPA

Air Resources Board

- [x] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Kurt Karperos
- [ ] Industrial Projects
  Mike Tollstrup

- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Jim Hockenberry
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [x] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 3/11/05

SECTION 1.4

PUBLIC SCOPING MEETING NEWSPAPER ADVERTISEMENT

PUBLIC NOTICE

#160185

PUBLIC SCOPING MEETING NOTICE

The City of Fresno and the Federal Aviation Administration (FAA), together with the Fresno Yosemite International Airport (FAT), are holding one Agency and one Public Scoping Meeting for the preparation of an Environmental Assessment - Environmental Impact Report on proposed Master Plan projects.

Date	Location	Time
Thursday	Agency Meeting	2:00 - 4:00 PM
July 21	Public Meeting	5:00 - 7:00 PM
	Holiday Inn,	
	5090 E Clinton Way	
	Valley Center Rm	

The meetings will provide a summary of projects and describe the process for environmental review. If unable to attend, written suggestions will be accepted until close of business July 29, 2005. Please mail to: Mr. Kevin Meikle, Airports Planning Manager, 4995 East Clinton Way, Fresno, CA 93727-1525 Fx:559-498-5549 Pn:559-621-4500 (PUB: June 25, 2005)

SECTION 1.5

AGENCY/PUBLIC SCOPING MEETING HANDOUT

FRESNO YOSEMITE INTERNATIONAL AIRPORT

MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

SCOPING INFORMATION PACKAGE

JULY 21, 2005

WELCOME TO AGENCY SCOPING MEETING

Agenda:

2:00 – 2:15 PM	**Informal Introductions and Interaction With Team Members**
2:15 – 2:20 PM	**Opening Remarks**
2:20 – 2:40 PM	**Presentation/Discussion of Master Plan**
2:40 – 3:00 PM	**Presentation/Discussion of EA/EIR**
3:00 – 3:30 PM	**Question and Answer Session**
3:30 – 4:00 PM	**Informal Discussion**

WELCOME TO PUBLIC SCOPING MEETING

Agenda:

5:00 – 5:30 PM	**Informal Interactive Session With Team Members**
5:30 – 5:40 PM	**Opening Remarks**
5:40 – 6:00 PM	**Presentation/Discussion of Master Plan**
6:00 – 6:20 PM	**Presentation/Discussion of EA/EIR**
6:20 – 6:40 PM	**Question and Answer Session**
6:40 – 7:00 PM	**Informal Discussion**

Fresno Yosemite International Airport

Master Plan Update EA/EIR
Scoping Information Package
July 21, 2005

NOTICE OF INTENT (NEPA)/NOTICE OF PREPARATION (CEQA)
FOR THE
ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT
REGARDING THE MASTER PLAN UPDATE
AT THE FRESNO YOSEMITE INTERNATIONAL AIRPORT (FAT)

TO: **Governmental/Regulatory Agencies and Interested Public Participants (refer to distribution list)**

FROM: **Federal Aviation Administration and the City of Fresno, California**

LEAD NEPA AGENCY:
Federal Aviation Administration
Western Pacific Region
San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010-1303
Fax: (650) 876-2733
Email: Aimee.Kratovil@faa.gov
Contact: Aimee Kratovil
Environmental Protection Specialist

LEAD CEQA AGENCY:
City of Fresno - Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Fax: (559) 498-5549
Email: Kevin.Meikle@fresno.gov
Contact: Kevin Meikle
Airports Planning Manager

SUBJECT: **Notice of Intent/Notice of Preparation (NOI/NOP) to prepare a joint Environmental Assessment/Environmental Impact Report (EA/EIR); Project No. 10136**

Summary: The Federal Aviation Administration (FAA) and the City of Fresno, CA are issuing this notice to advise the governmental/regulatory agencies and general public that a joint EA/EIR will be prepared to solicit input regarding the proposed projects under the Fresno Yosemite International Airport Master Plan Update. To ensure that all significant issues related to the Master Plan Update are identified, one (1) governmental/regulatory agency scoping meeting and one (1) general public scoping meeting will be held on the same day.

FAA will be the Lead Federal Agency, while the City of Fresno will be the Lead State Agency for the preparation of the EA/EIR regarding the action identified above. We need to know the views of your governmental/regulatory agency or public participant interests as to the scope of the environmental/social information that is germane to the proposed projects. Governmental/regulatory agencies will need to use the EA/EIR that is being prepared when considering your permit or other approval of the proposed projects. There will be additional opportunities to comment on the proposed projects at a later date. Preliminary comments on the scope of this EA/EIR should be submitted in writing to the addresses above and must be received no later than 5:00 P.M. Pacific Standard Time, on July 29, 2005.

Notice of Scoping Meetings: All interested parties are invited to attend their respective meeting on the scope of the EA/EIR.

- Governmental/Regulatory Scoping Meeting – Thursday, July 21, 2:00 – 4:00 P.M., Holiday Inn, 5090 East Clinton Way, Valley Center Room, Fresno, CA 93727

- General Public Scoping Meeting – Thursday, July 21, 5:00 – 7:00 P.M., Holiday Inn, 5090 East Clinton Way, Valley Center Room, Fresno, CA 93727

Reference: California Code of Regulations, Title 14 (CEQA Guidelines) Sections 15082 (a), 15103, 15375

Project Title: Fresno Yosemite International Airport Master Plan Update Environmental Assessment/Environmental Impact Report.

Project Location: Fresno Yosemite International Airport (FAT or Airport) generally lies east of State Route 168 (SR-168) and northeast of State Route 180 (SR-180), in the City of Fresno, CA. The City of Fresno is located in the San Joaquin Valley in central California. FAT is bounded by Dakota Avenue on the north, Clovis Avenue on the east, McKinley Avenue on the south, and Chestnut Avenue on the west. The Airport is accessed via Clinton Way from McKinley Avenue. Downtown Fresno and State Route (SR-99) lie approximately 5 miles southwest of FAT.

Project Background: FAT was developed by the U.S. Army Air Corps in the early 1940s as Hammer Field, with one northwest/southeast oriented runway and parallel taxiway systems. The U.S. Army Air Corps deactivated the base in late 1945 and the City of Fresno assumed operation in 1946 and adopted the name Fresno Air Terminal (FAT), which remains as the official airport code today. The original northwest/southeast runway, now identified as Runway 11L/29R, was extended to its current length between 1956 and 1968. A second runway, 11R/29L, was first constructed in 1956 and was extended to its current length in 1987. Currently, Runway 11L/29R is 9,227 feet long, 150 feet wide, and is equipped with a Category IIIb Instrument Landing System. Runway 11R/29L is 7,206 feet long, 100 feet wide, and has non-precision approach capabilities. Both runways are supported by full-length parallel taxiways on the north and south sides. An FAA Airport Traffic Control Tower is located on the south side of the Airport and provides 24-hour traffic control services. The City of Fresno renamed the airport to Fresno Yosemite International Airport in 1996, however, is still referred to as FAT.

FAT has a field elevation of 336 feet above mean sea level and accommodates numerous types of general, commercial, air-cargo, and military aircraft operations. Currently, the Airport is served by 6 commercial passenger carriers including Allegiant Air, American, American Eagle, Delta Connection (operated by Skywest), America West Express (operated by Mesa), Horizon, and United Express (also operated by Skywest) which serve slightly more than 1 million annual passengers. Frontier Air has recently agreed to begin service (operated by Horizon) starting August 31, 2005, and Mexicana is also considering international service starting in the Spring of 2006. Air cargo contributes to the airport by transporting more than 15,000 tons annually as belly cargo on passenger airlines, and main deck cargo on feeder carriers and major commercial cargo companies. The current airlines that provide air cargo include Ameriflight, Union Flights, Airborne (operating on behalf of DHL), Federal Express, UPS and some smaller air taxi/commuter operators.

Approximately 175 corporate and privately owned aircraft are based at FAT and utilize various aircraft hangars and outdoor tie-downs. Transient aircraft parking is also available. Additionally, there are 3 major Fixed Base Operators as well as the U.S Forest Service, the California Department of Forestry, the California Highway Patrol, the Fresno County Sheriff, and the City of Fresno Police Department operating out of the Airport. Furthermore, FAT is home to 3 military aviation units including the 144th Fighter Wing of the California Air National Guard, the California Army National Guard Aviation Classification and Repair Activity Depot (AVCRAD), and the U.S. Marine Corp Reserve Air Defense Activity Unit. All told, approximately 160,000 total aircraft operations occur annually at FAT.

The terminal and concourse building was originally completed in 1962 and was remodeled in 1978 1993, and 1997. A major renovation and upgrade of the concourse building was completed in late 2002, with a new two-level structure including four passenger-loading bridges, an expanded food court, business center, and children's play area. The terminal roadways were reconfigured to provide additional traffic lanes and parking was increased to accommodate more than 2,000 short and long-term spaces. Since this time period, FAT completed several projects such as runway and taxiway repaving and others smaller projects to maintain safe operations at the Airport.

The most comprehensive public environmental information regarding FAT was compiled in the Fresno Air Terminal Airport and Environs Plan (the Plan) that was adopted in September 1992, and amended and adopted in July 1997. These documents contain a summary of pertinent data in a consolidated format. Since then, some minor environmental documentation has been done at the Airport in the form of Categorical Exclusions and Negative Declarations, primarily in checklist format. The Airport has also generally been discussed in other environmental documents such as the General Plan Update EIR.

Project Purpose: This Master Plan Update EA/EIR is intended to provide a comprehensive view of proposed future development including an understanding of the existing conditions that have changed in recent years at FAT. The analysis will include a review of potential effects on the environment from the proposed projects in accordance with NEPA and CEQA regulations. The preferred alternative will be based on a thorough analysis of issues including safety, national policy, efficiency, economic, social, and environmental impacts.

Proposed Projects: The proposed projects to be examined in the EA/EIR will include the following primary airport improvements:

- Consolidated Rental Car Facility
- Rehabilitate Taxiway B4 and Construct C4
- Rehabilitate Taxiway C
- Rehabilitation of HPTWC
- Rehabilitate AC/PCC Concourse Apron
- Rehabilitate, widen, and Extend Runway 11R-29L
- Construct Terminal Parking Garage

Alternatives: The following alternatives will be evaluated in the EA/EIR to address short-term projects in 2010 and long-term projects in 2020. The NEPA analysis in the EA portion of the document will focus primarily on the short-term projects and discuss long-term projects under a cumulative impact section. The CEQA analysis will review all the preferred projects proposed in the master planned out to 2020. Additional reasonable and feasible alternatives may be evaluated in the EA/EIR as a result of the scoping process.

Alternative 1 - Proposed Projects: This alternative includes all of the items listed above under the proposed projects. This alternative consists of extending and rehabilitating Runway 11R/29L (secondary runway) from 7,206 feet to 8,000 feet long and widening from 100 feet to 150 feet. The extension can be located on either end of the runway. Also included in this alternative is the addition of a precision instrument approach system to Runway 11R/29L; improvements to the taxiway system to minimize runway occupancy times; establishment of a terminal support area to include the relocation/expansion of kitchen flight areas, airport maintenance, etc.; relocation of the rental car facilities to a new area west of the baggage claim; rehabilitation of several taxiways and apron areas and consideration of constructing a new terminal parking garage over the existing parking area.

Alternative 2 - No Action: This alternative consists of not implementing any elements of the Master Plan Update. No new development items identified in the Master Plan Update would be constructed or implemented in the future analysis years.

Alternative 3- Develop Another Airport in the Region: The City of Fresno also owns and operates Fresno-Chandler Executive Airport, which is located approximately 1.5 miles southwest of downtown Fresno (across SR-99) and 6.5 miles southwest of FAT. Currently, Fresno-Chandler Executive Airport has two runways of nearly equal length (Runway 12L/30R is 2,815 feet long and Runway 12R/30L is 2,972 feet long) and is utilized as a general aviation facility. Sierra Sky Park Airport is located on the northern edge of the City of Fresno, is approximately 8 miles northwest of FAT, and has one runway that is 2,920 feet long. This alternative considers further developing and /or improving either of these airports instead of FAT.

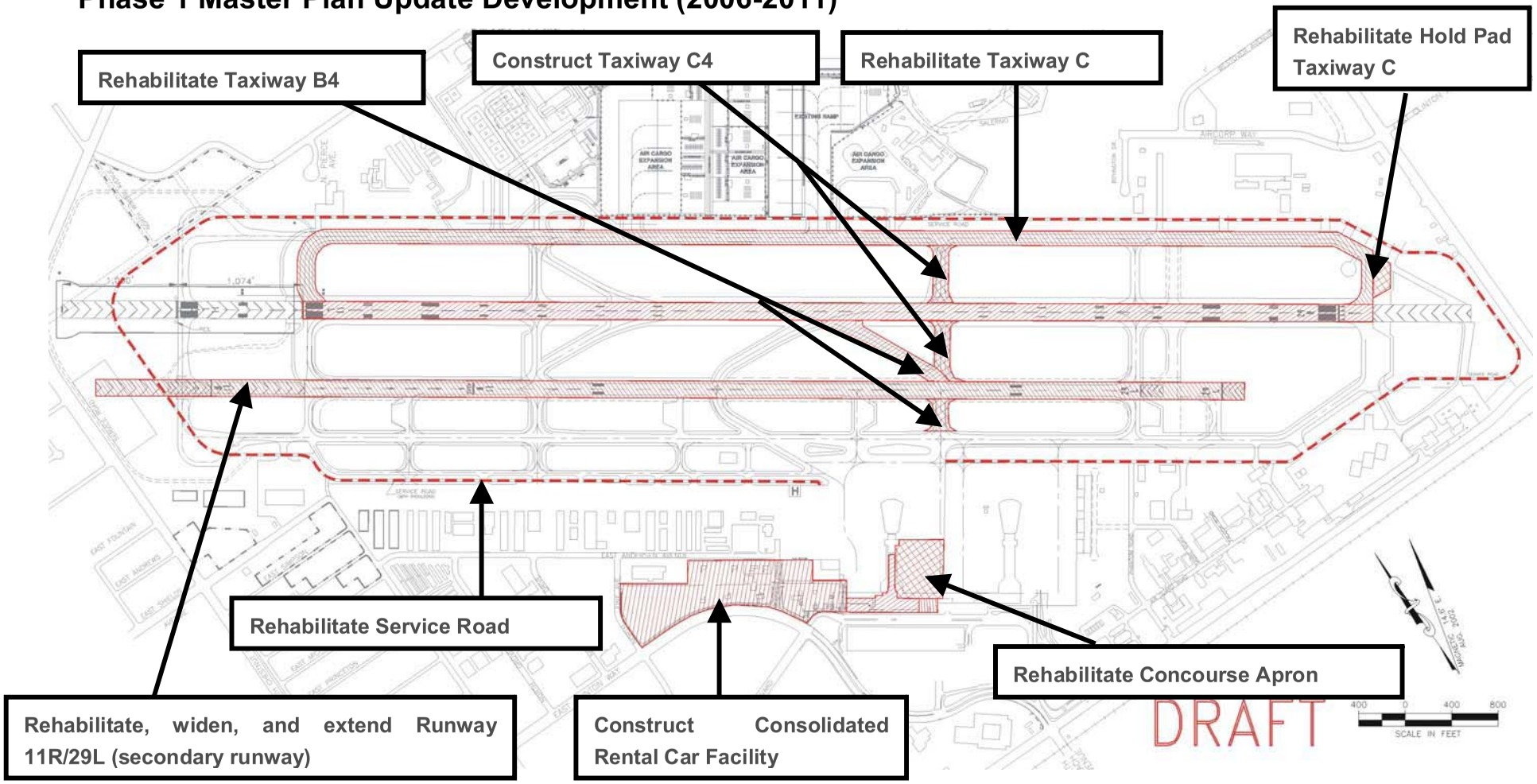
Alternative 4 - Use Alternative Modes of Transportation: This alternative would utilize other types of transportation modes such as rail(including high-speed), inter-city bus, and automobiles to transport people, goods, and services to transport visitors in and out of the area.

Alternative 5 - Develop a New Airport in the Region at a Different Site: This alternative consists of construction of a new airport facility instead of further developing the existing FAT airport.

Probable Environmental Effects: Construction of the proposed projects are expected to have minimal short-term environmental effects on its own, all of which are anticipated to be mitigated to a less than significant level. However, operations associated with the proposed projects are anticipated to result in cumulative and induced impacts that will need to be fully evaluated in the EA/EIR. These impacts are anticipated to be related to air quality, noise, traffic/transportation, and hydrology/water quality. At this time, all foreseeable impacts are expected to be mitigated to less than significant levels with mitigation measures identified in the EA/EIR.

Submitting Comments: Comments and suggestions are invited from Federal, State and local agencies, and other public participants to ensure that the full range of issues related to the proposed projects and the alternatives are addressed and all significant issues are identified. Comments on the scope of the EA/EIR should be submitted in writing to the addresses listed above by no later than 5:00 P.M. Pacific Standard Time, on July 29, 2005. Your names will be added to the agency/public participation list for the project.

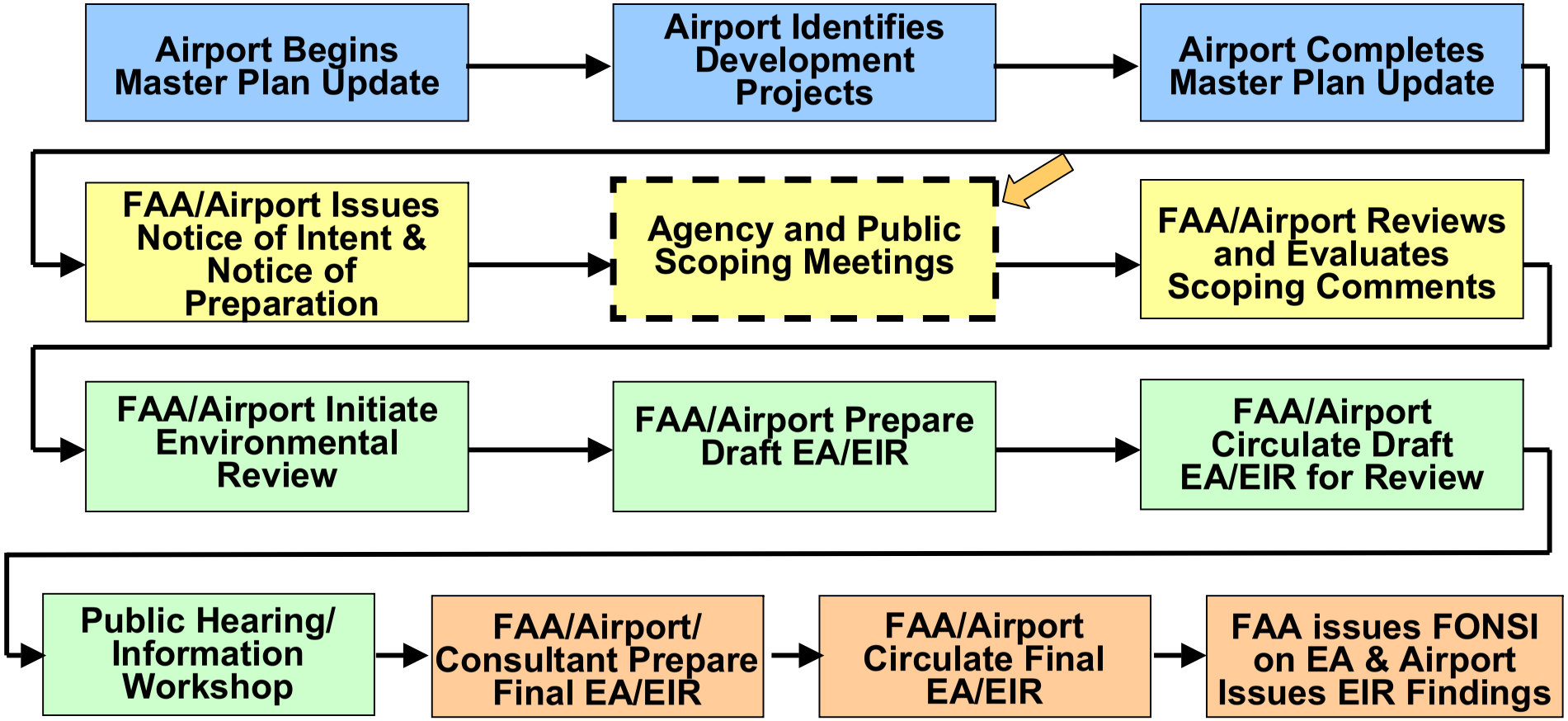
Phase 1 Master Plan Update Development (2006-2011)



Fresno Yosemite International Airport

Master Plan Update EA/EIR
Scoping Information Package
July 21, 2005

Airport Planning Process



Fresno Yosemite International Airport

Master Plan Update EA/EIR
Scoping Information Package
July 21, 2005

Purpose of the Scoping Process

- Identify affected parties, involved agencies, and interested parties
- Identify alternative methods to accomplishing the purpose of and need for the Proposed Project
- Identify environmental and social topics that should receive specific or enhanced attention
- Identify additional environmental factors that should be considered

Standard FAA/Airport EA/EIR Environmental Topics

- Noise
- Air Quality
- Land Use
- Wetlands
- Floodplains
- Farmlands
- Visual Quality
- Biological Resources
- Wild and Scenic Rivers
- Surface Transportation
- Cultural Resources
- Cumulative Impacts
- Construction Impacts
- Recreational Resources
- Utilities & Public Services
- Hydrology & Water Quality
- Geology, Soils, Seismicity
- Hazardous Materials/Solid Waste
- Natural Resources/Energy Supply
- Socioeconomics/Environmental Justice

Written Comments

Comment forms are available at this meeting for your written comments. You may submit written comments at this time or mail the comment form to the addresses listed on the form and provided below. Mailed comments should be postmarked by July 29, 2005.

MAIL COMMENTS TO:

Federal Aviation Administration
Western Pacific Region
San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010-1303
Fax: (650) 876-2733
Email: Aimee.Kratovil@faa.gov
Attn: Aimee Kratovil
Environmental Protection Specialist

City of Fresno – Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Fax: (559) 498-5549
Email: Kevin.Meikle@fresno.gov
Attn: Kevin Meikle
Airports Planning Manager

SECTION 1.6

AGENCY/PUBLIC SCOPING MEETING POWERPOINT PRESENTATION

Master Plan Update and EA/EIR Summary

AIRPORT MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

AGENDA

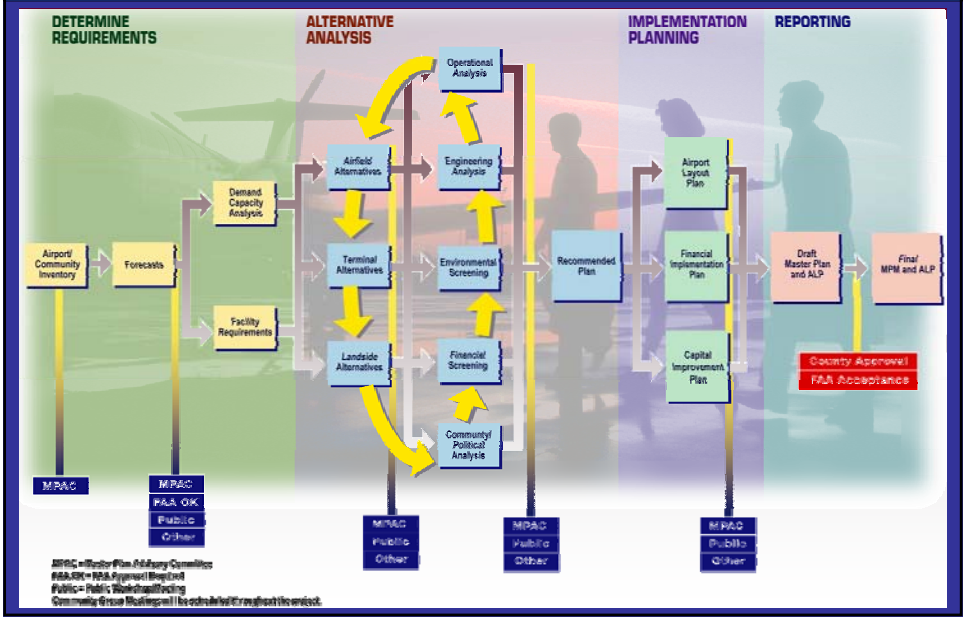
5:00 – 5:30 PM	Informal Interactive Session With Team Members
5:30 – 5:40 PM	Opening Remarks
5:40 – 6:00 PM	Presentation/Discussion of Master Plan
6:00 – 6:20 PM	Presentation/Discussion of EA/EIR
6:20 – 6:40 PM	Question and Answer Session
6:40 – 7:00 PM	Informal Discussion

PLANNING PROCESS
AIRPORT MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
Airport Begins Master Plan Update
Airport Identifies Development Projects
Airport Completes Master Plan Update
FAA/Airport Issues Notice of Intent & Notice of Preparation
Agency and Public Scoping Meetings
FAA/Airport Reviews and Evaluates Scoping Comments
FAA/Airport Initiate Environmental Review
FAA/Airport Prepare Draft EA/EIR
FAA/Airport Circulate Draft EA/EIR for Review
Public Hearing/ Information Workshop
FAA/Airport/ Consultant Prepare Final EA/EIR
FAA/Airport Circulate Final EA/EIR
FAA issues FONSI on EA & Airport Issues EIR Findings
URS

MASTER PLANNING
AIRPORT MASTER PLAN UPDATE
Establishes the City's Vision for the Airports Future
Identifies Opportunities for Airport Development
Balances Growth Decisions
Becomes an Official FAA Document
Makes Projects Eligible for Funding

MASTER PLAN PROCESS

AIRPORT MASTER PLAN UPDATE



AIRPORT ISSUES

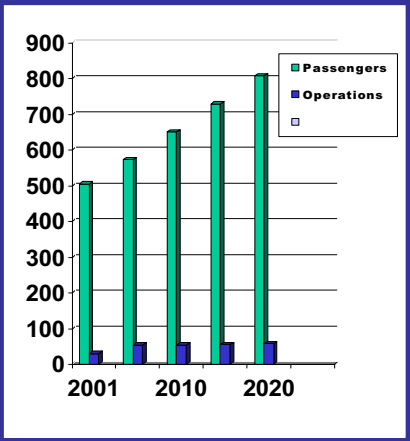
AIRPORT MASTER PLAN UPDATE

- Maintain the Facility
- Provide for Expansion
- Use Land Rationally
- Maintain Flexibility
- Assure Financial Feasibility
- Maintain Community Compatibility

AIRLINE ACTIVITY FORECAST

AIRPORT MASTER PLAN UPDATE

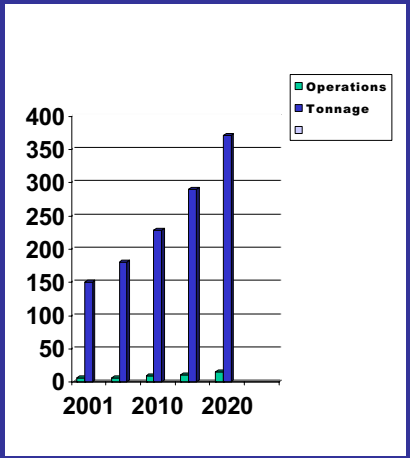
- Before the Year 2025
- Number Of Passengers Will Grow by 70%
- Number Of Operations Will Grow by 10%
- Aircraft Will Shift From Turboprops To Regional Jets



AIR CARGO FORECAST

AIRPORT MASTER PLAN UPDATE

- Activity Will Grow More Than 250%
- Carriers Will Serve More Destinations
- Supports Community Economic Development Plans



OTHER FORECASTS

AIRPORT MASTER PLAN UPDATE

- General Aviation Will Shift From Training To Business Flying
- Military Will Remain Active

FACILITY REQUIREMENTS

AIRPORT MASTER PLAN UPDATE

- Pavement and Building Maintenance
- Balance the Runway System
- Expand Passenger Terminal Facilities
- Expand Air Cargo Area
- Improve Safety and Reliability

BALANCE AIRFIELD

AIRPORT MASTER PLAN UPDATE

- Both Runways Capable of Accommodating Air Carrier and Air Cargo Flights
- Efficient Taxiway System
- Better Instrument Approach Capabilities

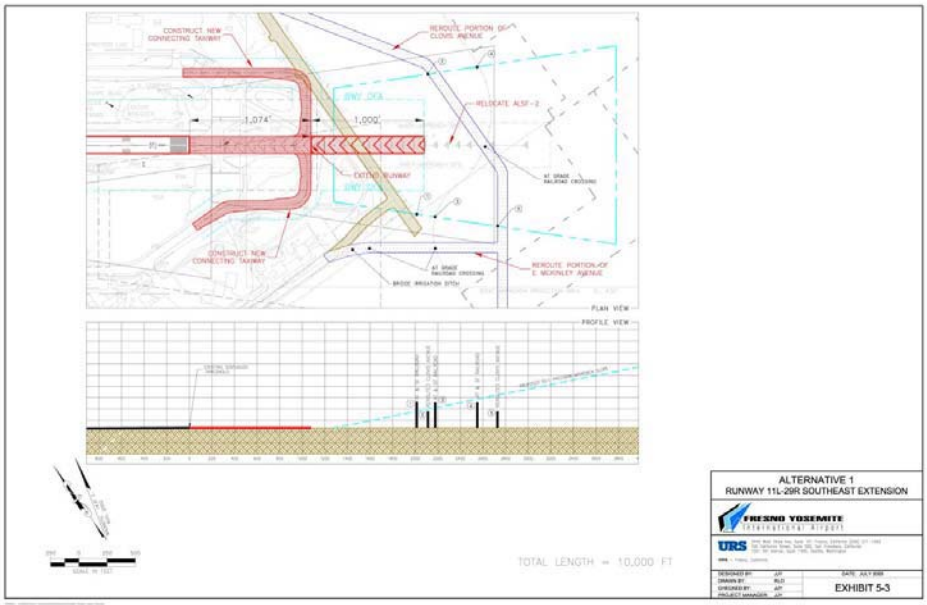
TERMINAL EXPANSION

AIRPORT MASTER PLAN UPDATE

- Increase in Building Space
  - FIS Facility
  - Wider Concourse
  - Security Checkpoints
- New Parking Garage
- Consolidated RAC Facility
- Support Services

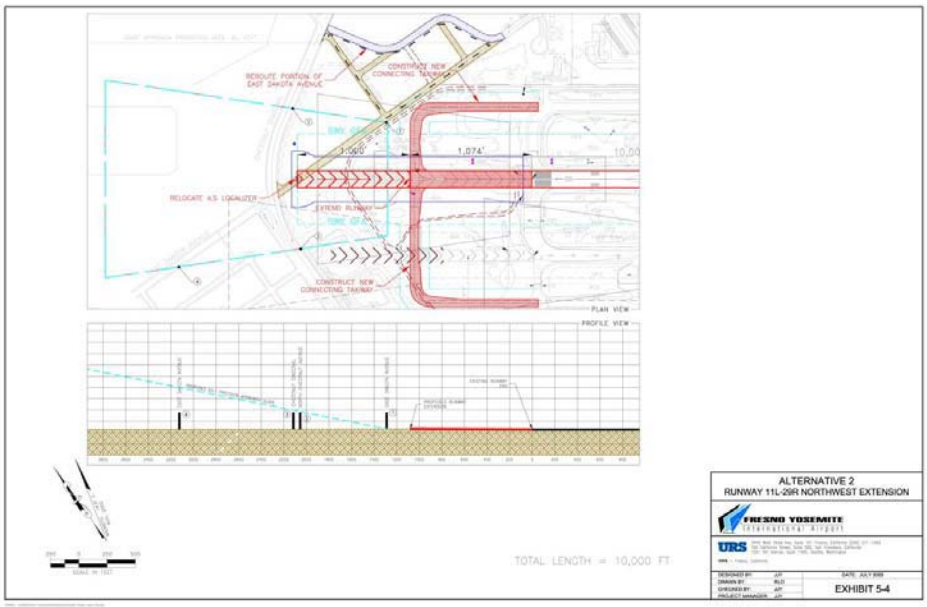
RUNWAY 11/29 ALTERNATIVE 1

AIRPORT MASTER PLAN UPDATE



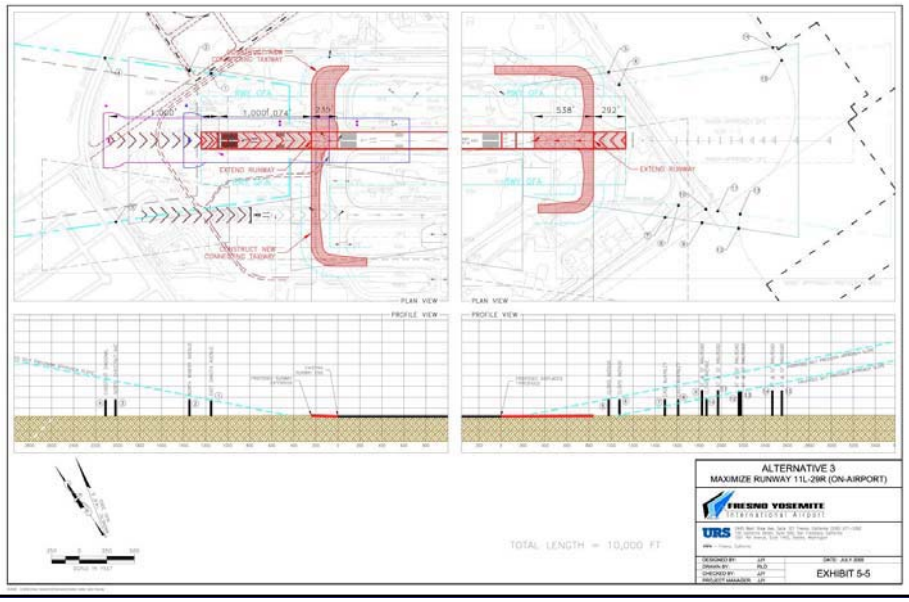
RUNWAY 11/29 ALTERNATIVE 2

AIRPORT MASTER PLAN UPDATE



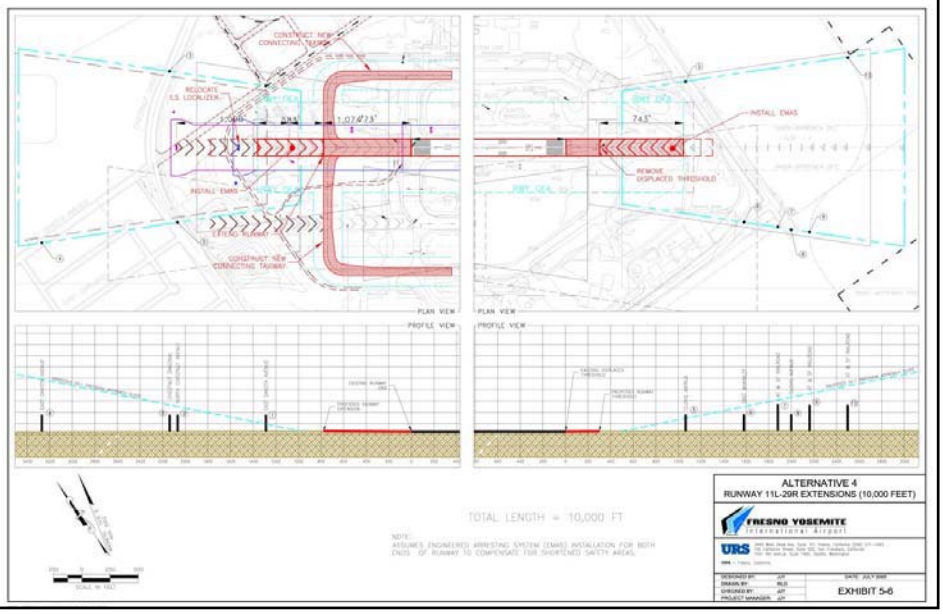
RUNWAY 11/29 ALTERNATIVE 3

AIRPORT MASTER PLAN UPDATE



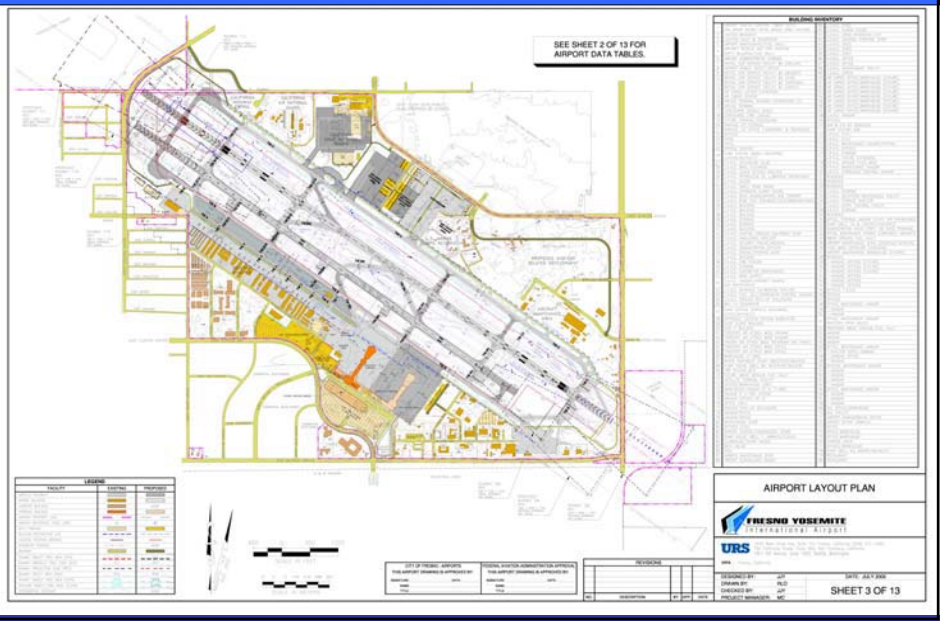
RUNWAY 11/29 ALTERNATIVE 4

AIRPORT MASTER PLAN UPDATE



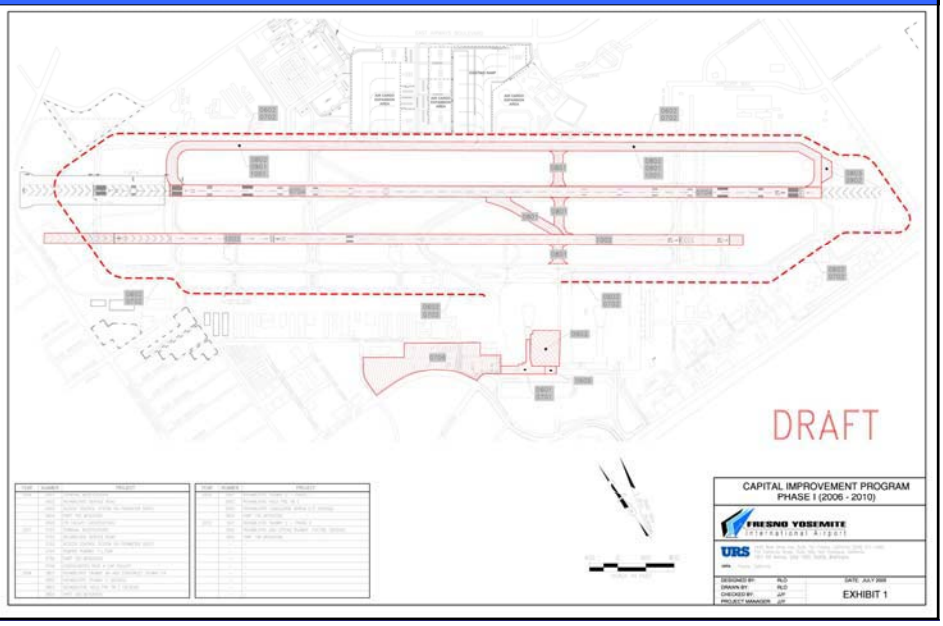
AIRPORT LAYOUT PLAN

AIRPORT MASTER PLAN UPDATE



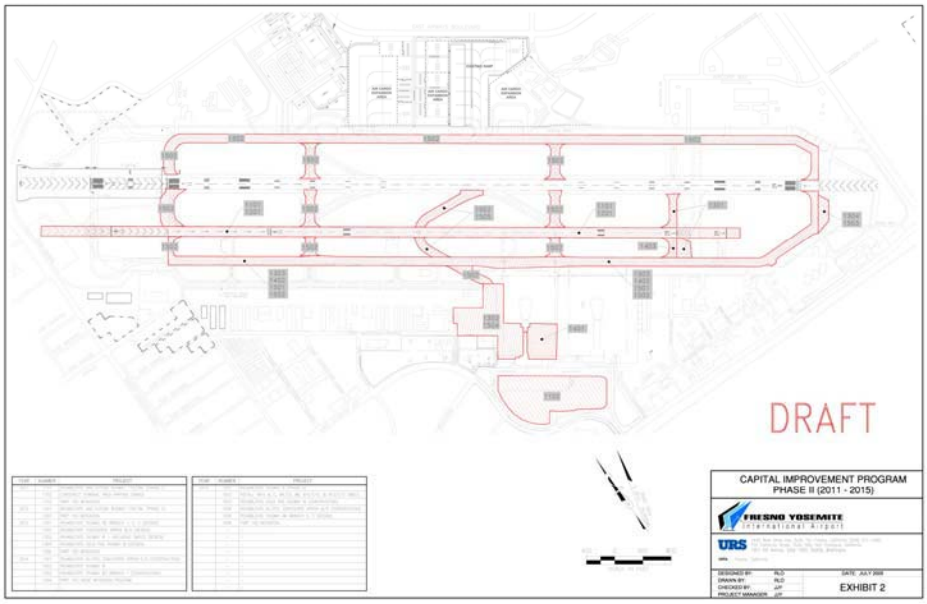
PHASE I (2006-2010) DEVELOPMENT

AIRPORT MASTER PLAN UPDATE



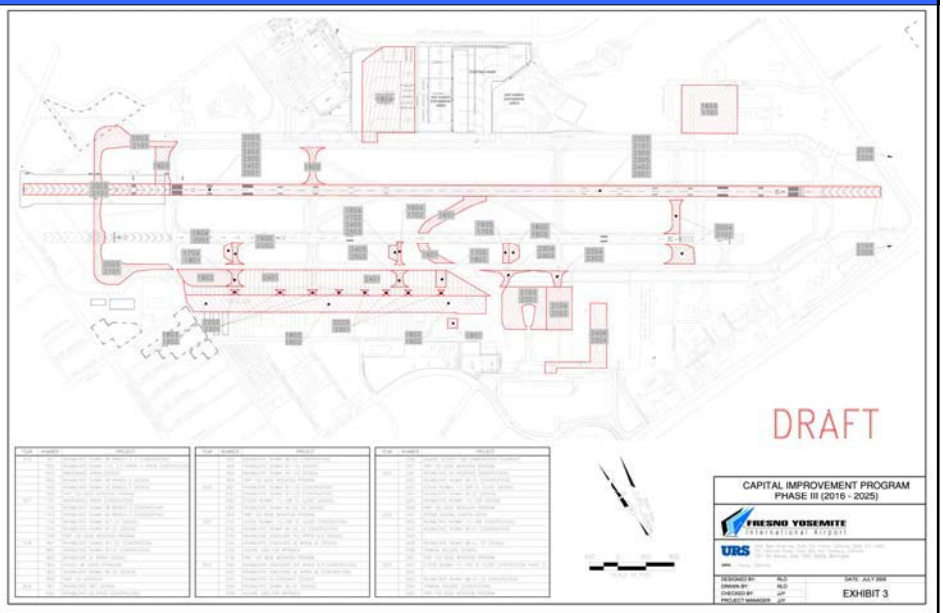
PHASE II (2011-2015) DEVELOPMENT

AIRPORT MASTER PLAN UPDATE



PHASE III (2016-2025) DEVELOPMENT

AIRPORT MASTER PLAN UPDATE



Master Plan Update EA/EIR

- Develop Single Document that Fulfills FAA / NEPA and City/CEQA Requirements
- Prepared According to FAA Order 5050.4a / 1050.1D Standards
- Technical Appendices to Contain Most Relevant Information
- Supplemental Reference Documents For Voluminous Support Materials

PRIMARY STEPS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

1. Public Scoping Workshop
2. Finalize Purpose & Need, Alternatives, Objectives
3. Existing Documentation and Regulations
4. Technical Analysis, Impact Findings, Mitigation
5. Prepare Draft EA/EIR
6. Public Review and Hearing
7. Prepare Final EA/EIR

INTEGRATED APPROACH

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

- **Review Existing Data/Verify Permit Requirements**
  - environmental permits for construction of planned improvements at Airport over short-term (e.g., over next 5 years).
  - USACE: Section 404-Clean Water Act; SHPO- Section 106 ; FWS/CDFG- Endangered Species Acts; Federal Clean Air Act, National Ambient Air Quality Standards; RWQCB
- **Definition of Purpose and Need and Early Coordination With FAA and City**
  - Assist with statement of purpose and need(NEPA), (project objectives under CEQA)
- **Identification of Alternatives**
  - Review alternatives considered in the planning process from MP update as a starting place

PURPOSE & NEED

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

- Forms Basis of Entire Study
- Utilize Recently Completed
  - Forecasts
  - Demand / Capacity Analyses
  - Facility Requirements
  - Environmental Inventory
- Prepare Purpose and Need Statements

PRELIMINARY ALTERNATIVES

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

The alternative discussion is typically characterized as "the heart of the EA/EIR." The alternatives section must demonstrate that FAA/Airport has conducted an independent review and analysis of reasonable alternatives to the Proposed Project and that its recommendation of a "Preferred Alternative" is based on a thorough analysis of issues including safety, national policy, efficiency, economic, social, and environmental impacts.

Preliminary Alternatives to be examined in EA/EIR include:

Alternative 1 – Proposed Projects

Alternative 2 – No Action

Alternative 3 – Develop Another Airport in Region

Alternative 4 – Use Alternative Modes of Transportation

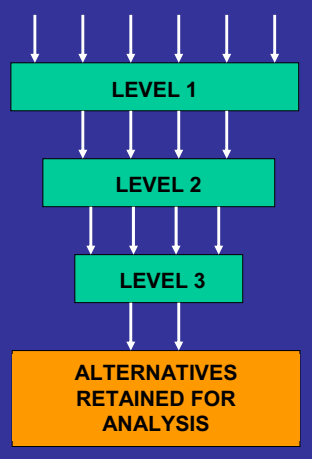
Alternative 5 – Develop New Airport in Region at Different Location

SCREENING ALTERNATIVES

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

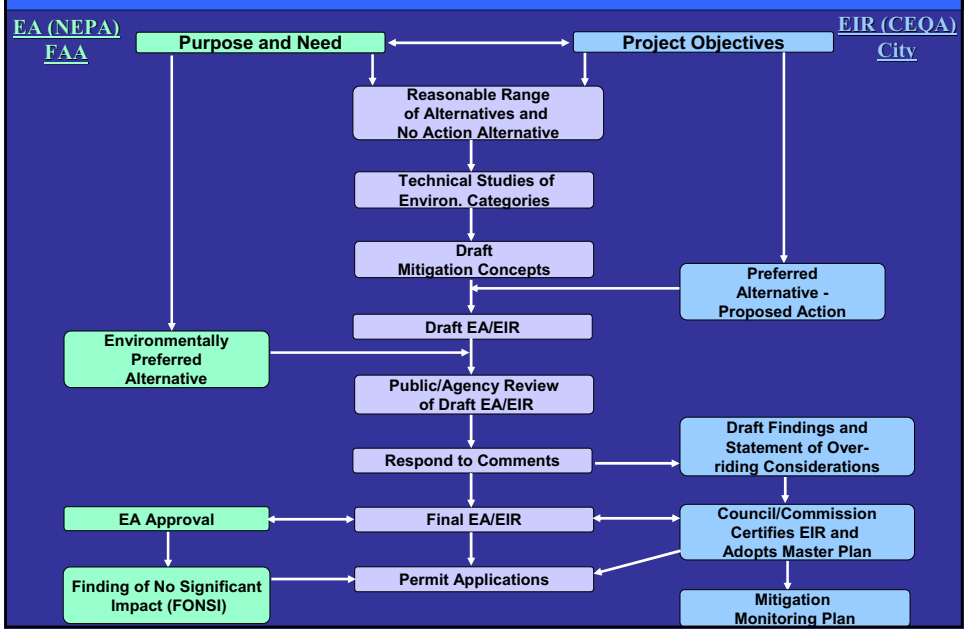
- Systematic Process of Evaluation using a Three-level Matrix:
  - Ability to Meet Purpose and Need
  - Construction Feasibility
  - Benefit / Cost
  - Environmental Permittability
- Prepare Alternatives Working Paper



INTEGRATED PROCESS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT



ENVIRONMENTAL TOPICS

AIRPORT MASTER PLAN UPDATE

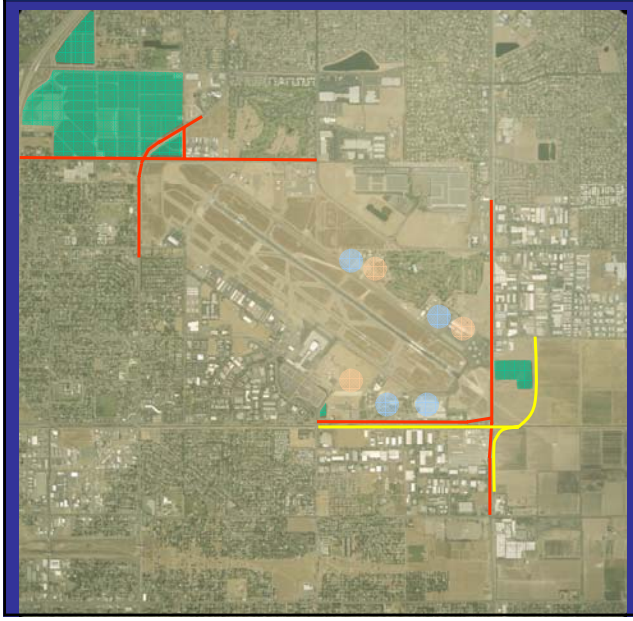
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

- Noise
- Air Quality
- Land Use
- Wetlands
- Floodplains
- Farmlands
- Visual Quality
- Biological Resources
- Wild and Scenic Rivers
- Surface Transportation
- Cultural Resources
- Cumulative Impacts
- Construction Impacts
- Recreational Resources
- Utilities & Public Services
- Hydrology & Water Quality
- Geology, Soils, Seismicity
- Hazardous Materials/Solid Waste
- Natural Resources/Energy Supply
- Socioeconomics/Environmental Justice

EXISTING CONSTRAINTS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT



Legend

- Roadways
- Rail Road Tracks
- Detention Basins
- Cultural Resources
- Hazardous Materials

PROJECT DESCRIPTION

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

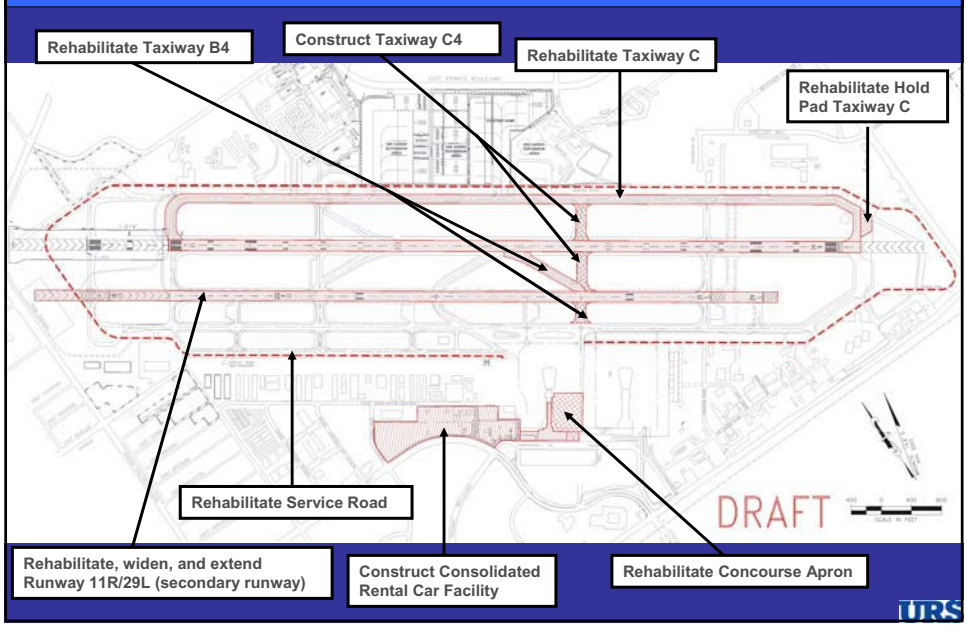
Proposed projects to be evaluated in MP Update EA/EIR include the following airport improvements:

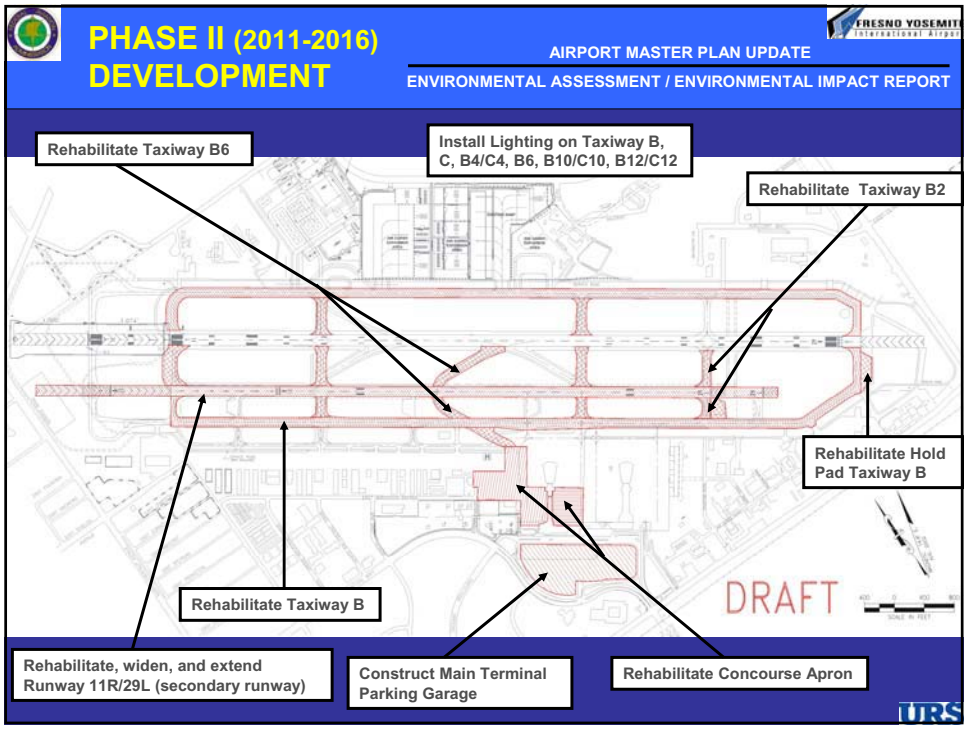
1. Rehabilitate, widen, and extend Runway 11R/29L (secondary runway)
2. Rehabilitate Taxiway B4 and construct Taxiway C4
3. Rehabilitate Taxiway C
4. Rehabilitate Hold Pad Taxiway C
5. Rehabilitate Asphalt Concrete/Portland Cement Concrete Concourse Apron (Adjacent to Original Terminal)
6. Construct consolidated Rental Car Facility
7. Construct main terminal parking garage

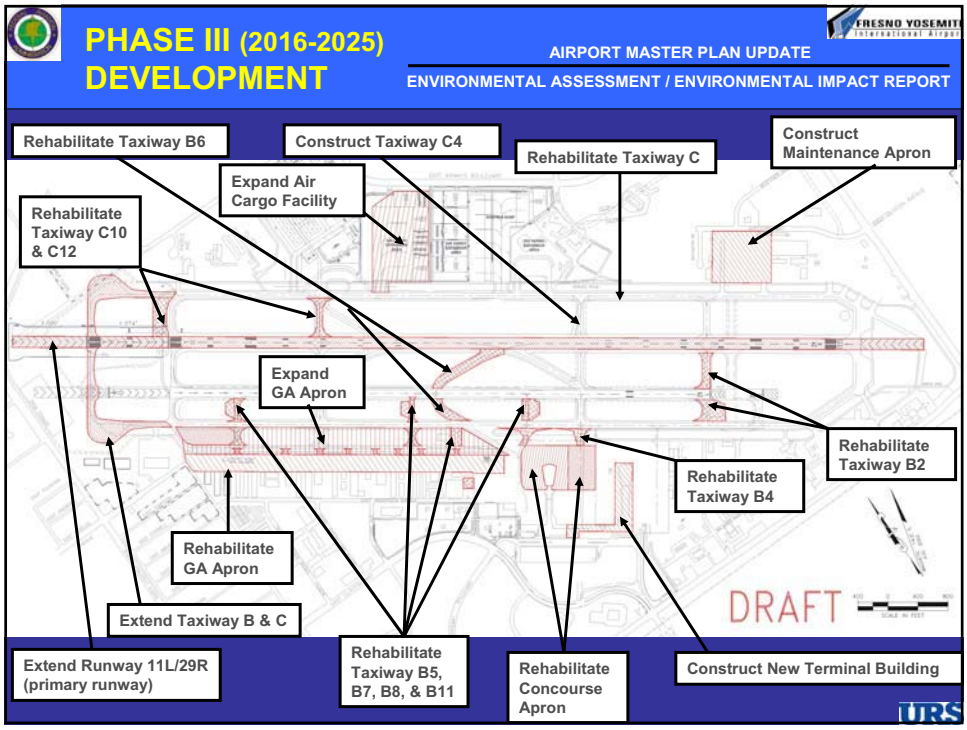
PHASE I (2006-2011) DEVELOPMENT

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT




PHASE II (2011-2016) DEVELOPMENT
AIRPORT MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
Rehabilitate Taxiway B6
Install Lighting on Taxiway B, C, B4/C4, B6, B10/C10, B12/C12
Rehabilitate Taxiway B2
Rehabilitate Hold Pad Taxiway B
Rehabilitate Taxiway B
DRAFT
Rehabilitate, widen, and extend Runway 11R/29L (secondary runway)
Construct Main Terminal Parking Garage
Rehabilitate Concourse Apron
URS


PHASE III (2016-2025) DEVELOPMENT
AIRPORT MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
Rehabilitate Taxiway B6
Construct Taxiway C4
Rehabilitate Taxiway C
Construct Maintenance Apron
Expand Air Cargo Facility
Rehabilitate Taxiway C10 & C12
Expand GA Apron
Rehabilitate Taxiway B2
Rehabilitate Taxiway B4
Rehabilitate GA Apron
DRAFT
Extend Taxiway B & C
Extend Runway 11L/29R (primary runway)
Rehabilitate Taxiway B5, B7, B8, & B11
Rehabilitate Concourse Apron
Construct New Terminal Building
URS

CONTENTS & OUTREACH

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

EA/EIR FORMAT

The following major elements / chapters:

- Executive Summary
- Purpose and Need
- Alternatives
- Affected Environment
- Environmental Consequences
- Mitigation
- Coordination and Public Involvement
- List of Preparers, List of Parties to Whom Sent
- References
- List of Abbreviations, Acronyms, and Glossary
- Index

PUBLIC INVOLVEMENT

Public involvement and comments are an important component and includes the following 2 periods.

- Scoping Comment Period: This Scoping Meeting is an opportunity to comment today or provide follow-up comments in writing by July 29, 2005.
- Draft EA/EIR Comment Period: Public Hearing: Following 30 days from release of the the Draft EA/EIR, a Public Hearing will be held to receive public and agency comments on the document. Comments will be reviewed, responded to, and incorporated into the Final EA/EIR and made available for public review.

AGENCY INVOLVEMENT

Agencies will be encouraged to participate in the public comment process and will be contacted throughout the EA/EIR to address issues and discuss future approvals required for the projects.

ANALYSIS METHOD EXAMPLES

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

Noise

- Use Part 150 Existing Contour as Baseline
- Identify land use and sensitive sites
- Develop existing and future noise contours
- Estimate noise exposure using GIS
- Compare results with the No Action Alternative
- Identify significant noise increases
- Coordinate with stakeholders

Air Quality

- FAT located in non-attainment are for particulate Matter (PM10) and Ozone (O3)
- Conform to State Implementation Plan (SIP)
- Meet local Air Quality Plan standards
- Apply EPA-approved Methods and Models
- Identify significant increases in emissions
- Coordinate with stakeholders

Hydrology & Water Quality

- Review of Ground and Surface Water Systems
- Stormwater Runoff From Expanded Pavement
- SWPPP (Stormwater Pollution Prevention Plan)
- SPCC Spill Prevention Countermeasure Controls
- Proximity of Leaky Acres Recharge Basins
- Identify significant increases in runoff
- Coordinate with stakeholders

Biological Resources

- Confirm List of Species of Concern
  - Burrowing Owl, Tiger Salamander, Red Fox
- Identify Causes of Existing Population Conditions
  - Disease, Pesticides, Human Disturbance
- Identify land use and sensitive habitat
- Coordinate with Resource Agencies
- Identify significant increase in habitat disturbance
- Coordinate with stakeholders

HOW TO SUBMIT COMMENTS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

Written Comments

Comment forms are available at this meeting for your written comments. You may submit written comments at this time or mail the comment form to the addresses listed on the form and provided below. Mailed comments should be postmarked by July 29, 2005.

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Federal Aviation Administration
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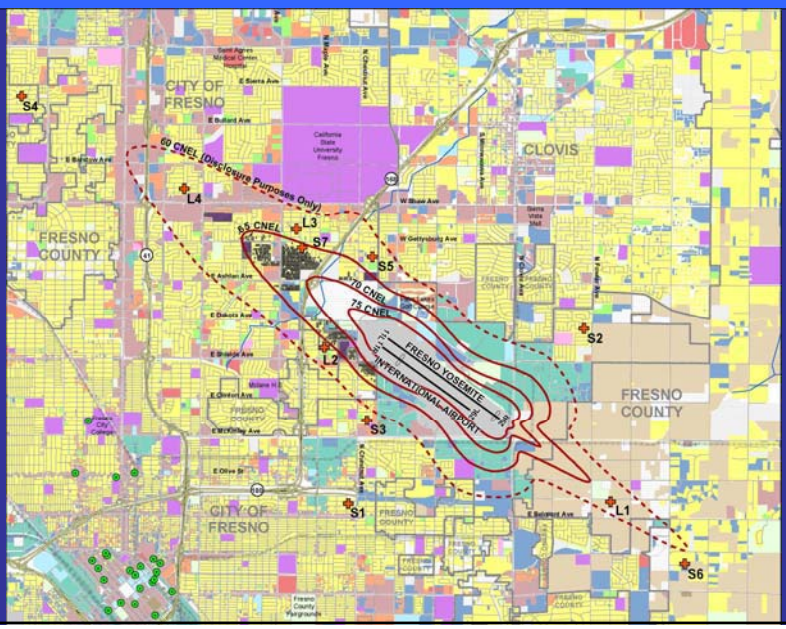
San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010-1303
Attn: Aimee Kratovil

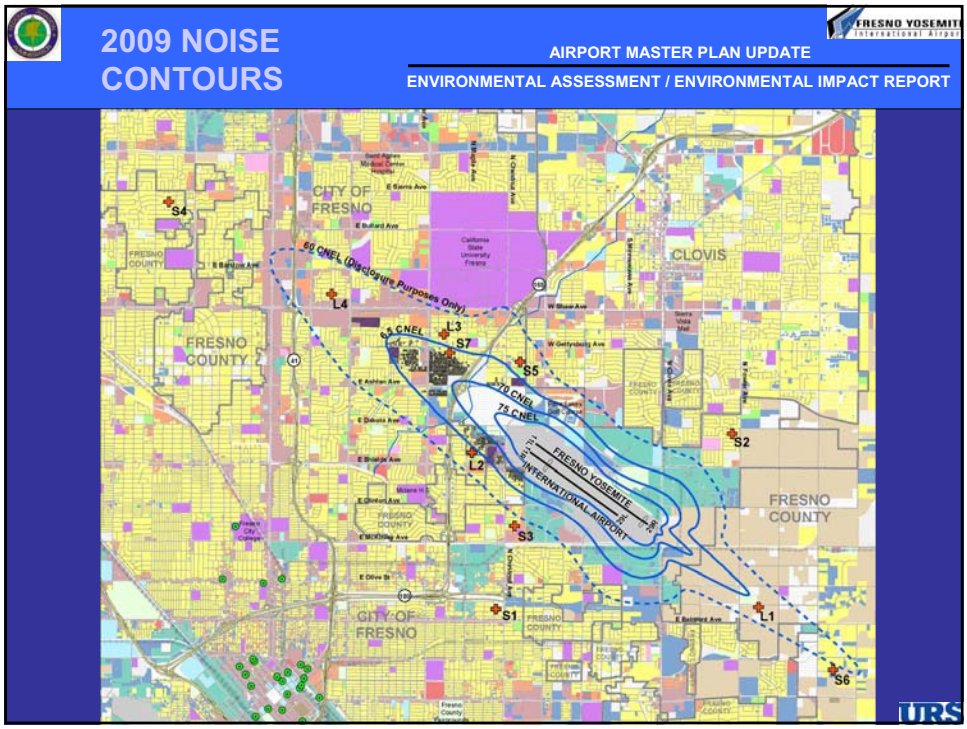
City of Fresno – Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Attn: Kevin Meikle

2004 NOISE CONTOURS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT




2009 NOISE CONTOURS
AIRPORT MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
FRESNO YOSEMITE International Airport
CITY OF FRESNO
CLOVIS
FRESNO COUNTY
65 CNEL (Disclosure Purposes Only)
65 CNEL
70 CNEL
75 CNEL
FRESNO YOSEMITE INTERNATIONAL AIRPORT
S1
S2
S3
S4
S5
S6
S7
L1
L2
L3
L4
URS

SECTION 1.7

AGENCY/PUBLIC SCOPING MEETING PRESENTATION BOARDS

SCOPING MEETING

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

WELCOME

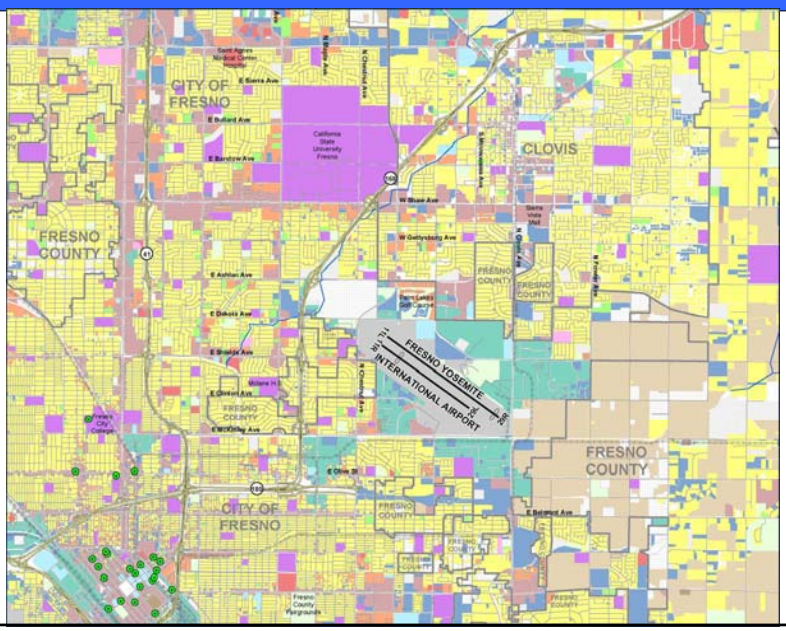
REGISTRATION

URS

WHERE DO YOU LIVE?

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT



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ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

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URS

ENVIRONMENTAL TOPICS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

- Noise
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- Wetlands
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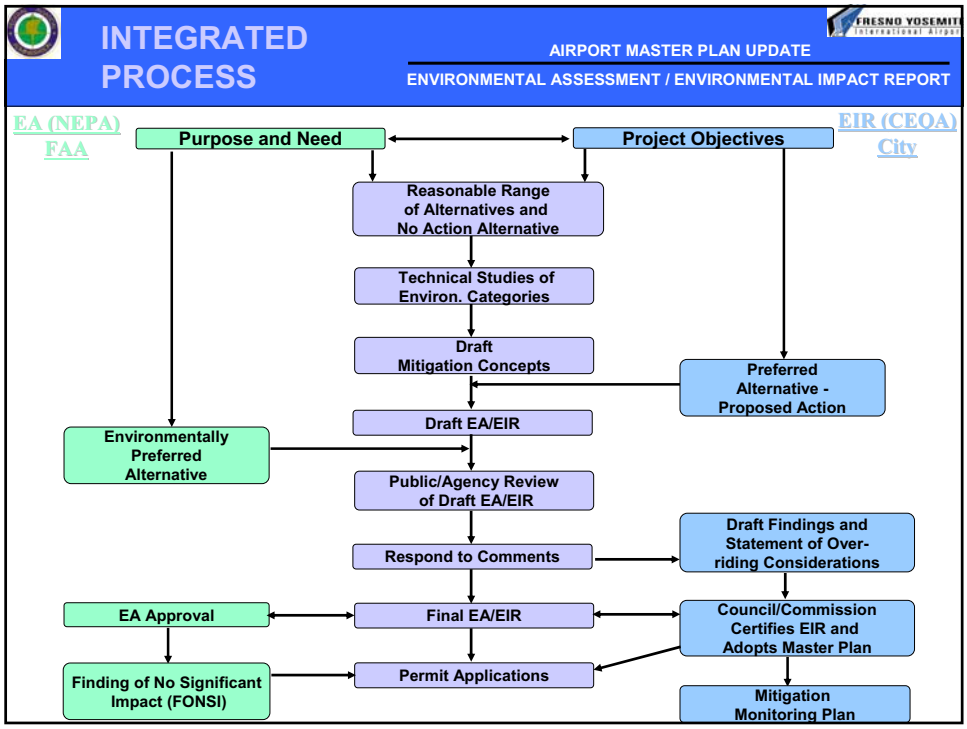
URS



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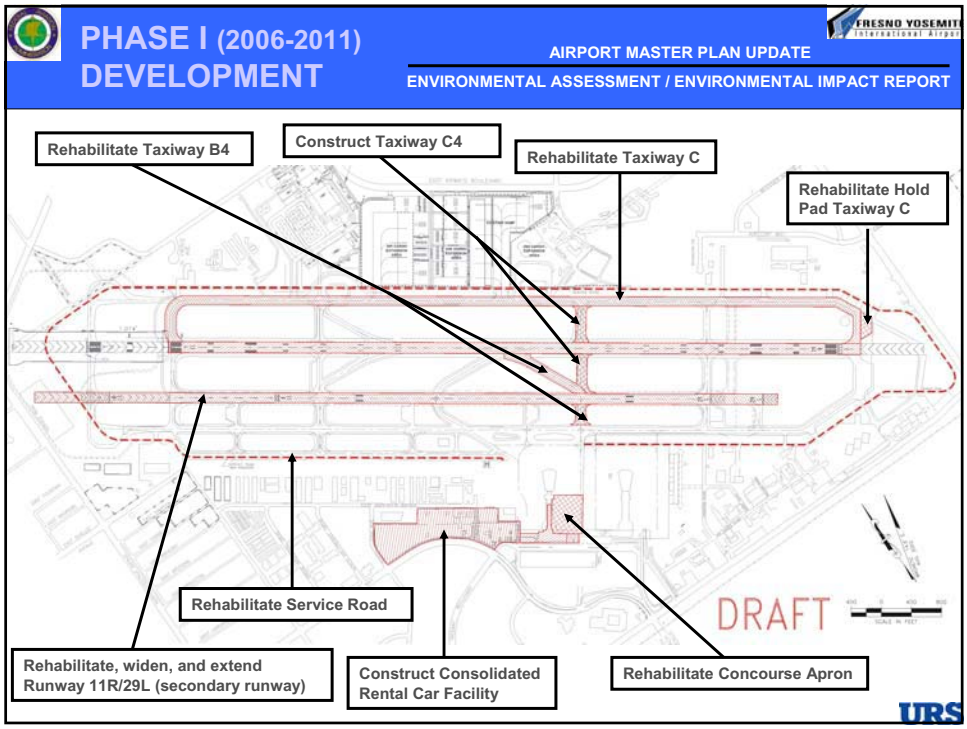
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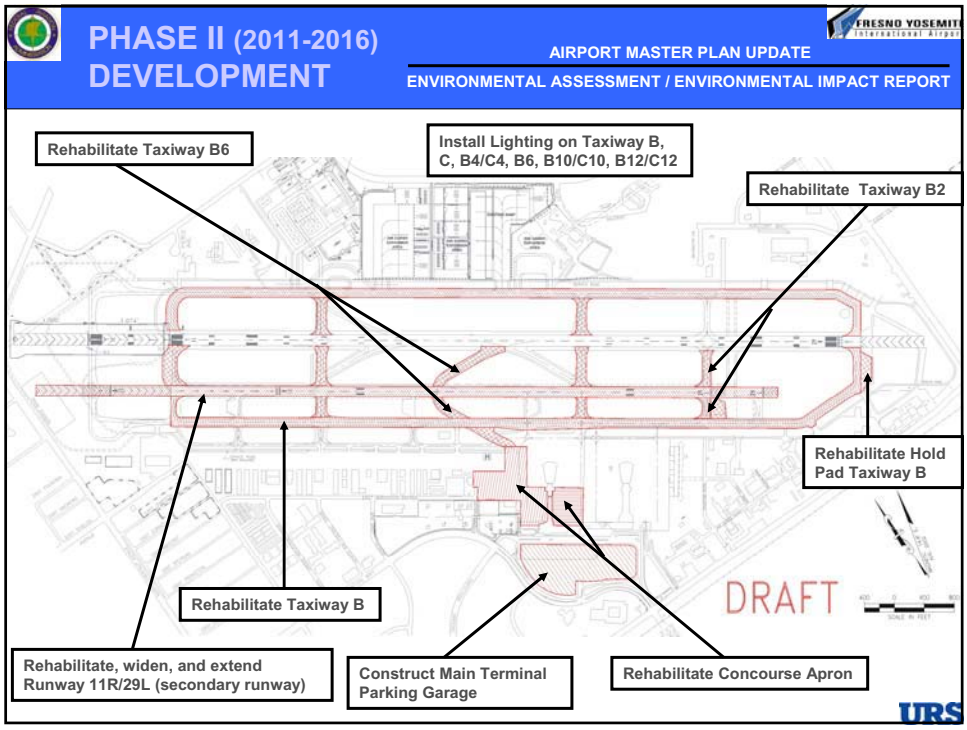
Rehabilitate Concourse Apron
DRAFT
URS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DRAFT
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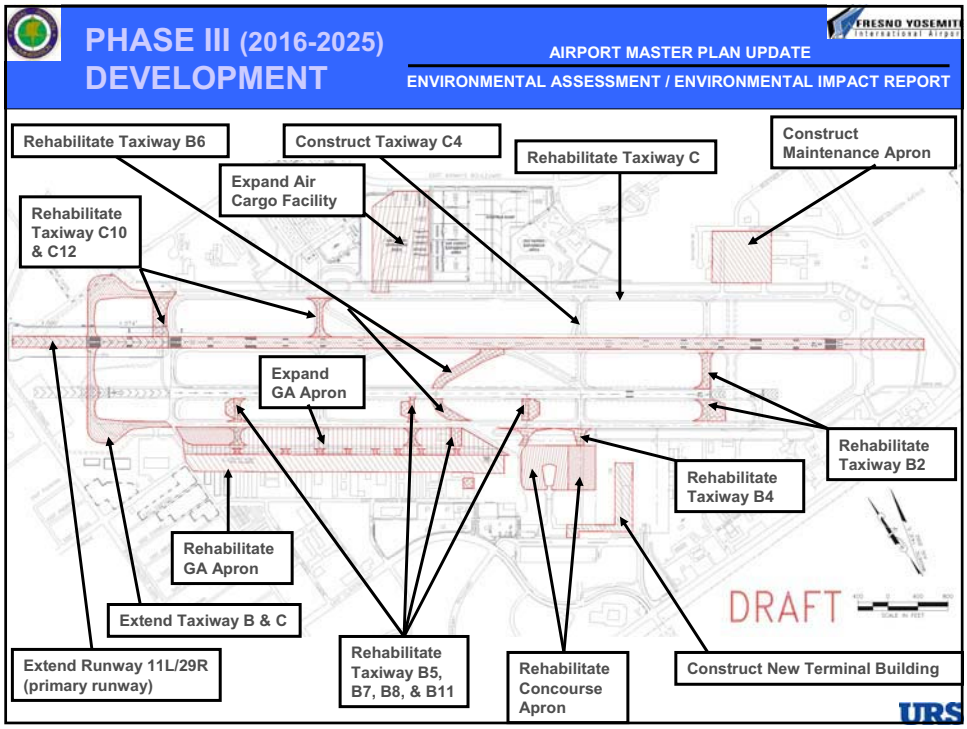
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Rehabilitate Taxiway B4
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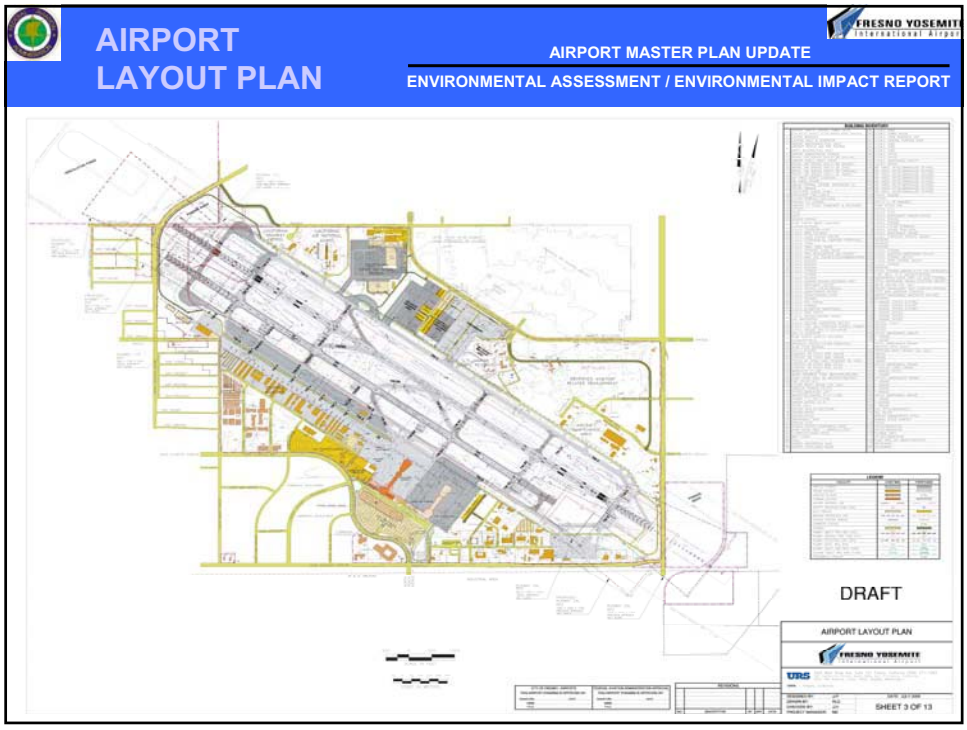
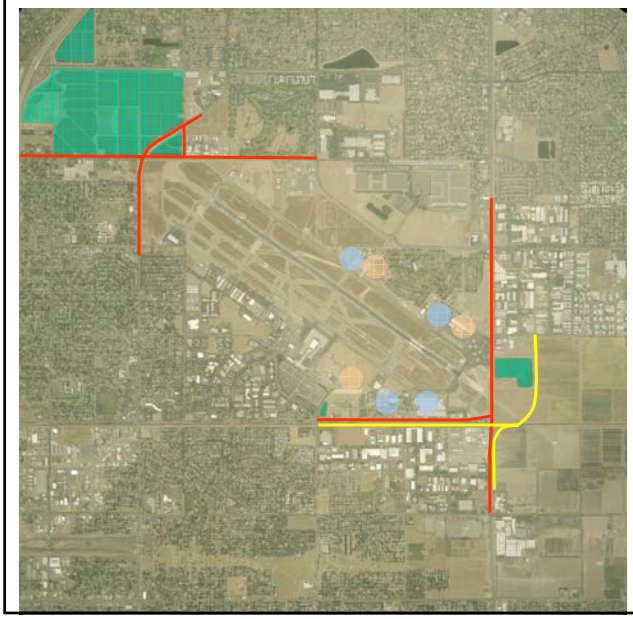
URS


AIRPORT LAYOUT PLAN
AIRPORT MASTER PLAN UPDATE
ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT
DRAFT
AIRPORT LAYOUT PLAN
SHEET 3 OF 13

EXISTING CONSTRAINTS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT



Legend

- Roadways
- Rail Road Tracks
- Detention Basins
- Cultural Resources
- Hazardous Materials

URS

HOW TO SUBMIT COMMENTS

AIRPORT MASTER PLAN UPDATE

ENVIRONMENTAL ASSESSMENT / ENVIRONMENTAL IMPACT REPORT

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City of Fresno – Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Attn: Kevin Meikle

URS

SECTION 2.0

MEETING RECORDS

SECTION 2.1

AGENCY/PUBLIC SCOPING MEETING SIGN-IN-SHEET

Fresno Yosemite International Airport
Master Plan Update – Environmental Assessment/Environmental Impact Report

Agency Scoping Meeting – Sign-In Sheet
Date: 7-21-05 Time: 2:00-4:00 pm

FRESNO YOSEMITE International Airport

Name	Agency/Firm	Telephone	Email
1. Terri Harmon	Fresno County	262 4870	tharmon@co.fresno.ca.us
2. Mike Sanchez	City of Fresno	621-8040	mike.sanchez@fresno.gov
3. Daniel Rourke	Fresno Metropolitan Flood Control District	456 3292	danielr@FresnoFloodControl.com
4. Renée DeVere	Fresno COG	233-4148	rdevere@fresnocog.org
5.			
6.			
7.			
8.			
9.			
10.			
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12.			
13.			

Fresno Yosemite International Airport
Master Plan Update – Environmental Assessment/Environmental Impact Report

PUBLIC SCOPING MEETING – SIGN-IN SHEET

Date: 7-21-05 Time: 5:00-7:00 pm

Name	Address	Telephone	Email
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
12.			

SECTION 2.2

FAA AND CITY OF FRESNO COMMENT FORM

Fresno Yosemite International Airport

Master Plan Update EA/EIR
Agency/Public Scoping Meeting
July 21, 2005

COMMENT FORM

This form is provided to receive your comments regarding the Environmental Assessment/Environmental Impact Report (EA/EIR) for the Master Plan Update Improvements at the Fresno Yosemite International Airport. Please use the space provided below, attaching additional pages if necessary. Either deposit the form in the comment box, or mail/fax your comment to one of the addresses below.

YOUR COMMENTS:

YOUR NAME:

YOUR ADDRESS:

Please mail your comments to **either** FAA **or** the City of Fresno at the following addresses. **Comments must be received or postmarked by 5:00 pm Pacific Daylight Time, Friday, July 29, 2005**

Aimee Kratovil
Environmental Protection Specialist
Federal Aviation Administration
831 Mitten Road, Room 210
Burlingame, CA 94010-1303
Fax: (650) 876-2733

Kevin Meikle
Airports Planning Manager
City of Fresno – Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Fax: (559) 498-5549

SECTION 3.0

SCOPING COMMENTS

SECTION 3.1

AGENCY/PUBLIC SCOPING MEETING COMMENT DATABASE SUMMARY REPORT

COMMENT DATABASE SUMMARY REPORT

The following information is provided to assist the reader in understanding how this scoping report is developed and how it relates to the ultimate development of the EA/EIR:

- These comments have been extracted from a variety of submittals, including letters. All types of submittals are treated equally (only e-mail or letter comments have been provided during the scoping process so far).
- For this report comments from the public and from agencies are treated uniformly and are not differentiated.
- Comments have been assigned to topic categories by the EA/EIR team members. The categories used are established prior to the processing of comments and are based on experience in previous similar projects and on the issues identified during the scoping meetings.
- The presentation of topics and issues in the EA/EIR documents will follow standard FAA protocols, and will likely be organized in a different manner than that used in this report.
- A similar comment database report will be provided as part of the Final EA/EIR, but will include responses to comments submitted in regard to the Draft EA/EIR.

The topic categories include the following:

1. Purpose and Need
2. Alternatives Screening
3. Air Quality
4. Biological Resources
5. Coastal Resources
6. Compatible Land Use
7. Construction Impacts
8. Cultural Resources
9. DOT Section 4(f)/6(f)
10. Farmlands
11. Floodplains
12. Geology, Soils, Seismicity
13. Hazardous Materials/Solid Waste
14. Hydrology & Water Quality
15. Natural Resources/Energy Supply
16. Noise
17. Recreational Resources
18. Socioeconomics/Environmental Justice
19. Surface Transportation
20. Utilities & Public Services
21. Visual Quality
22. Wetlands
23. Wild and Scenic Rivers
24. Cumulative Impacts
25. NEPA Evaluation
26. CEQA Evaluation
27. EA/EIR Process
28. General Support
29. General Opposition
30. Airport Design
31. Public Safety
32. Miscellaneous

COMMENT DATABASE SUMMARY REPORT

Issue	Comment Number	Comment	Commenter	Date	Type of Comment
1. Purpose and Need		No comments received.			
2. Alternatives Screening	2-2	EIR should consider multi-modal facility analysis for Alternative 4.	California Department of Transportation – District 6	7/28/05	Letter
	7-1	EIR should discuss what developments/improvements would occur with Alternative 3.	Fresno Neighborhood Alliance	7/15/05	E-Mail
	7-2	EIR should define types of proposed transportation modes for and identify operational authorities, their approximate costs, and proposed sources of funding for Alternative 3.			
	7-3	EIR should evaluate the effects of economic vitality/development of a new airport on the City of Fresno (Alternative 5), and provide the cost effectiveness of this alternative.			
3. Air Quality	5-1	EIR should provide description of the regulatory environment and existing air quality conditions impacting the area. Also it should identify all existing District	San Joaquin Valley Air Pollution Control	7/29/05	Letter

Issue	Comment Number	Comment	Commenter	Date	Type of Comment
		regulations that apply to the project	District		
	5-2	EIR should provide estimates of existing emissions and projected pollutant emissions related to the increase in project source emissions and vehicle use, along with an analysis of the effects of these increases.			
	5-3	EIR should identify and discuss all feasible measures that will reduce air quality impacts generated by the project.			
	5-4	Components of this project may be subject to District permitting requirements and require a Permit to Operate. Equipment subject to the District's PTO requirements, must obtain an Authority to Construct from the District.			
	9-1	EIR should consider use of ultra low sulfur fuel, newer diesel engines, alternative clean fuel engines, alternative fuel sources, and particulate filters.	U.S. EPA	10/6/05	E-Mail
	9-2	EIR should discuss use of cleanest technology for all airport-related transport vehicles			
	9-3	EIR should discuss expedited commitments to reduce ground service equipment use.			
	9-4	EIR should discuss incorporation of FAAs Voluntary Airport Low Emissions Program and commit to specific			

Issue	Comment Number	Comment	Commenter	Date	Type of Comment
	9-5	methods to reduce emissions associated with fueling. EIR should discuss measures to reduce auxiliary power unit emissions.			
4. Biological Resources		No comments received.			
5. Coastal Resources		No comments received.			
6. Compatible Land Use	1-5	EIR should consider protection of airports from incompatible land use encroachment.	California Department of Transportation – Division of Aeronautics	7/25/05	Letter
7. Construction Impacts	9-6 9-7	EIR should discuss best available control measures for criteria pollutants, such as suspension of earth-moving or other similar activities during high wind events. EIR should discuss incorporation of specific Construction Mitigation Plan to include measures for fugitive dust source controls, mobile/stationary source controls, and administrative controls.	U.S. EPA	10/6/05	E-Mail
8. Cultural Resources		No comments received.			
9. DOT Section 4(f)/6(f)		No comments received.			
10. Farmlands		No comments received.			
11. Floodplains		No comments received.			
12. Geology, Soils, Seismicity		No comments received.			
13. Hazardous Materials/Solid Waste	3-1	EIR needs a description of solid and/or liquid waste that might be generated by the proposed project and how it will be handle, treated, and disposed.	California Regional Water Quality Control Board – Central	7/26/05 and 7/25/05	Letter

Issue	Comment Number	Comment	Commenter	Date	Type of Comment
	4-5	If the proposed project involves petroleum storage in above ground tanks, with single tank capacity greater than 660 gallons or cumulative capacity of greater than 1,320 gallon, the proponent will be subject to State above ground petroleum tank regulations.	Valley Region		
14. Hydrology & Water Quality	3-3	If the proposed project disposes of waste that affects water quality, a Report of Waste Discharge must be submitted for review.	California Regional Water Quality Control Board – Central Valley Region	7/26/05 and 7/27/05	Letter
	3-4 4-1	If construction of proposed project disturbs more than one acre, compliance with NPDES General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity will be required for potential discharges to surface waters, including ephemeral and intermittent streams. Before construction begins, City must submit a Notice of Intent to comply with NPDES permit, a site map, and appropriate fee to the State Water Resources Control Board and a SWPPP must be prepared.			
	4-2	If the proposed project results in construction dewatering discharges, compliance with NPDES Permit No. CAG 995501, General Order No. 5-00-175 may be required.			
	4-3	Airport will need to continue compliance with NPDES Permit No. CAS000001 and SWPPP WDID#5C10S001884.			
15. Natural Resources/Energy Supply		No comments received.			

Issue	Comment Number	Comment	Commenter	Date	Type of Comment
16. Noise	6-1	EIR should discuss noise impacts on existing and planned schools from increase noise.	Clovis Unified School District	7/26/05	Letter
	7-1	EIR should discuss relevant contours for Alternatives 1, 3, and 5 regarding noise impacts on residences, schools, and other clear zones. Then establish mitigation measures and costs involved and proposed funding measures.	Fresno Neighborhood Alliance	7/15/05	E-Mail
	8-1	EIR should discuss aircraft noise from startup/warmup on southeast side of Airport, and address F-16 noise.	Fresno Neighborhood Alliance	9/30/05	E-Mail
17. Recreational Resources		No comments received.			
18. Socioeconomics/Environmental Justice		No comments received.			
19. Surface Transportation	2-1	EIR should consider traffic impacts on SR-168 and SR-180 from airport.	California Department of Transportation – District 6	7/28/05	Letter
20. Utilities & Public Services	3-2	EIR needs a description of how storm water drainage may be affected by the proposed project.	California Regional Water Quality Control Board – Central Valley Region	7/26/05	Letter
21. Visual Quality		No comments received.			
22. Wetlands or Waters of the U.S.	3-5 4-4	If the proposed project results in the discharge of dredged or fill material into navigable waters or wetlands, the proponent must obtain a permit pursuant to Section 404 of the Clean Water Act from the Corps	California Regional Water Quality Control Board – Central	7/26/05 and 7/27/05	Letter

Issue	Comment Number	Comment	Commenter	Date	Type of Comment
		and a Section 401 Water Quality Certification from the CRWQCB.	Valley Region		
23. Wild and Scenic Rivers		No comments received.			
24. Cumulative Impacts		No comments received.			
25. NEPA Evaluation		No comments received.			
26. CEQA Evaluation		No comments received.			
27. EA/EIR Process		No comments received.			
28. General Support		No comments received.			
29. General Opposition		No comments received.			
30. Airport Design	1-3 1-4	EA should consider Operational Safety on Airport During Construction (FAA Advisory Circular 150/5370-2E) to identify permanent/temporary impacts during design. Depending upon structural heights during construction, FAA may require Notice of Proposed Construction or Alteration (Form 7460-1) pursuant to FAA FAR Par 77.	California Department of Transportation – Division of Aeronautics	7/25/05	Letter
31. Public Safety	6-1	EIR should discuss safety impacts on existing and planned schools from increased air traffic or flight patterns.	Clovis Unified School District	7/26/05	Letter
32. Miscellaneous	1-1 1-2	The proposed runway extension will require an amended State Airport Permit. Need to contact Aviation Safety Officer for Fresno County. Submit Airport Master Plan Update to Fresno County Airport Land Use Commission for review.	California Department of Transportation – Division of Aeronautics	7/25/05	Letter

SECTION 3.2

AGENCY/PUBLIC SCOPING MEETING COMMENTS RECIEVED

SCANNED COMMENT IMAGES

This section of the scoping report presents the scanned images of all comments that have been received. The following information will help the reader use and understand this section:

The comments are ordered by the document identifier assigned to them; please refer to the index at the beginning of the Comment Database Summary Report section to locate a specific comment.

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
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AIRPORTS DEPARTMENT

July 25, 2005

Ms. Aimee Kratovil
Federal Aviation Administration
Western Pacific Region
San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010-1303

Mr. Kevin Meikle
Airports Planning Manager
City of Fresno-Airports
4995 East Clinton Way
Fresno, CA 93737-1525

Dear Ms. Kratovil and Mr. Meikle:

Re: Notice of Intent/Notice of Preparation for the Environmental Assessment/Environmental Impact Report for the Master Plan Update at the Fresno Yosemite International Airport

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public and special use airports and heliports. The following comments are offered for your consideration.

The Federal Aviation Administration (FAA) will be the Lead Federal Agency and the City of Fresno will be the Lead State Agency in the preparation of a joint Environmental Assessment/Environmental Impact Report (EA/EIR) for the proposed Fresno Yosemite International Airport Master Plan Update. Proposed airport improvement projects include rehabilitating and extending Runway 11R/29L (on either end) from 7,206 feet to 8,000 feet in length and widening it from 100 to 150 feet; adding a precision instrument approach system to Runway 11R/29L; improvements to the taxiway system to minimize runway occupancy times; establishment of a terminal support area to include the relocation/expansion of kitchen flight areas, airport maintenance, etc.; relocation of the rental car facilities to a new area west of the baggage claim; rehabilitation of several taxiways and apron areas and the consideration of a new terminal parking garage over the existing parking area.

The proposed runway extension will require an amended State Airport Permit. Detailed information regarding the State Airport Permit can be viewed on-line at http://www.dot.ca.gov/hq/planning/-aeronaut/htmlfile/airportpermit.php. Please contact the Division's Aviation Safety Officer for 1-1

Fresno County, Ms. Chris Ferrell, at (916) 654-5216, for assistance with the amended State Airport Permit requirements.

Prior to amending the State Airport Permit, the Division, as Responsible Agency, requires assurance that the proposal is in full compliance with CEQA. The issues of primary concern to us include airport-related noise and safety impacts on the surrounding community and protecting the airport from encroachment by incompatible land uses.

CEQA, Public Resources Code 21096, requires the Caltrans Airport Land Use Planning Handbook (Handbook) be used as a resource in the preparation of environmental documents for projects within the boundaries of an airport land use compatibility plan, or if such a plan has not been adopted, within two nautical miles of an airport. We recommend that the State guidance for land use planning around the airfield be incorporated into the environmental analysis.

1-2 The proposed Airport Master Plan and its environmental document should be submitted to the Fresno County Airport Land Use Commission for their review and consistency determination. The Public Utilities Code Section 21676 (c) requires that "each public agency within the boundaries of an airport land use commission plan shall, prior to the modification of its airport master plan, refer such proposed change to the airport land use commission." The airport land use commission must then determine whether the proposed master plan is consistent or inconsistent with the adopted compatibility plan for that airport. If inconsistencies are identified, then the airport land use commission should take steps to amend its airport land use compatibility plan.

1-3 The guidance in the FAA Advisory Circular 150/5370-2E, *Operational Safety on Airports During Construction*, should be incorporated into the project design in order to identify any permanent or temporary construction-related impacts (e.g. construction cranes, etc.) to the airport/heliport imaginary surfaces. This advisory circular is available at http://www.faa.gov/ARP/publications/-acs/5370-2e.pdf.

1-4 Depending on structural heights during construction, the FAA may require a Notice of Proposed Construction or Alteration (Form 7460-1) pursuant to Federal Aviation Regulation Part 77. The FAA's Air Traffic and Airspace Management website at http://www.faa.gov/aso/aso500/-obst_eval.htm provides technical and procedural information regarding the filing of this form.

1-5 The protection of airports from incompatible land use encroachment is vital to California's economic future. Although the need for compatible and safe land uses near airports in California is both a local and a State issue, airport staff, airport land use commissions and airport land use compatibility plans are key to protecting an airport and the people residing and working in the vicinity of an airport. Consideration given to the issue of compatible land uses in the vicinity of an airport should help to relieve future conflicts between airports and their neighbors.

These comments reflect the areas of concern to the Division of Aeronautics with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our district office concerning surface transportation issues.

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Thank you for the opportunity to review and comment on this proposal. We look forward to reviewing the EA/EIR. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Sandy Hesnard

SANDY HESNARD
Aviation Environmental Planner

c: Bud Laumer-Fresno County ALUC

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July 28, 2005

2131-IGR/CEQA
6-FRE-168-2.0+/-;
FRE-180-60.9+/-
FRESNO YOSEMITE INTERNATIONAL
AIRPORT MASTER PLAN UPDATE

Mr. Kevin Meikle
City of Fresno
4995 East Clinton Way
Fresno, CA 93727

Dear Mr. Meikle:

We have reviewed the Notice of Preparation (NOP) for the Fresno Yosemite International Airport Master Plan Update draft Environmental Impact Report DEIR). The airport is bounded by Dakota, Clovis, McKinley and Chestnut Avenues. We have the following comments:

State Route (SR) 168 and SR 180 have taken into consideration the traffic impacts from the airport. However, should additional commercial or industrial uses be proposed, Caltrans requests the opportunity to review and comment on these projects. **2-1**

The NOP indicates that Alternative 4 of the DEIR will include the consideration of other types of transportation modes. Caltrans encourages the City to consider incorporating the evaluation of a multi-modal facility regardless of which alternative is chosen. Multi-modal analysis will help focus limited resources on those transportation facilities that are critical to the City's economy and quality of life. Rather than focusing on individual modes and facilities, a comprehensive evaluation will provide a means to improve connectivity among individual modes, improving travel time, reliability, and expanding the options available. Multi-modal facilities support interregional, interstate and international transportation services, supporting the diversification of the region's economy. Transportation costs are reduced, access improved. **2-2**

We request that this letter be made a part of the permanent public record for this project and that a copy of our letter be included in any staff reports. This will provide the decision-making body and the general public with a complete and accurate environmental evaluation for the project.

If you have any questions, please call me at (559) 445-6666.

Sincerely,

Moses Stites

MOSES STITES
Office of Transportation Planning
District 6

C: Ms. Sandy Hesnard, Caltrans Aeronautics
Ms. Barbara Goodwin, Council of Fresno County Governments

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Alan C. Lloyd Ph.D.
Secretary for Environmental Protection

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Arnold Schwarzenegger
Governor

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05 JUL 27 AM 11:55

26 July 2005

Mr. Kevin Meikle
City of Fresno - Airports
4995 East Clinton Way
Fresno, CA 93727-1525

NOTICE OF PREPARATION FOR THE ENVIRONMENTAL IMPACT REPORT REGARDING THE MASTER PLAN UPDATE AT THE FRESNO YOSEMITE INTERNATIONAL AIRPORT, CITY OF FRESNO, FRESNO COUNTY

Your request for comments on the Notice of Preparation for the Environmental Impact Report for the Master Plan Update at the Fresno Yosemite International Airport was received on 7 July 2005. The City of Fresno, in conjunction with the Federal Aviation Administration, is proposing to make several primary airport improvements, including extending and rehabilitating runways, constructing a terminal parking garage, and consolidating the rental car facility.

The final CEQA environmental document (Environmental Impact Report, Negative Declaration, or Mitigated Negative Declaration) needs to include a description of all solid and/or liquid waste that might be generated by the proposed project and how it will be handled, treated, and disposed. 3-1 The CEQA environmental document also needs to consider how storm water drainage may be affected by the proposed project. 3-2

Pursuant to California Water Code, Section 13260, all persons proposing to discharge waste that may affect the quality of waters of the state must submit to the Regional Board a Report of Waste Discharge, following which the Regional Board will either prescribe waste discharge requirements (WDRs) or issue a waiver. If WDRs are prescribed, they will incorporate measures to mitigate potentially significant impacts to water quality and potential public nuisances that are due to the treatment or discharge of waste. 3-3

Regulations published in the Federal Register on 8 December 1999 expanded the storm water program to include small municipal separate storm sewer systems (MS4) (serving a population of less than 100,000 and located in an urbanized area). Such small MS4s must obtain an NPDES Phase II municipal permit by March 2003 and comply with its terms for storm water management and control. The Phase II storm water minimum requirements include public education and outreach, public involvement and participation, illicit discharge detection and elimination, pollution prevention and good housekeeping in municipal operations, construction site urban runoff control, and post-construction management in new development and redevelopment. Since City of Fresno has submitted a draft NPDES Phase II permit application, these minimum 3-4

constituents of concern are present in quantities that would cause an exceedance of water quality objectives.

3-5 If any individual project component will result in the discharge of dredged or fill material into navigable waters or wetlands (jurisdictional waters), the proponent must obtain a permit pursuant to Section 404 of the Clean Water Act from the US Army Corps of Engineers and a Section 401 Water Quality Certification from this office. The Regional Board will review the Section 401 certification application to ensure that discharges will not violate water quality standards. If the project will result in the discharge of dredged or fill material into wetlands that are determined by the Corps to be non-jurisdictional, the City will not be required to obtain a Section 401 Water Quality Certification, but may be required to submit a report of waste discharge (RWD) if the wetlands are waters of the State. The Regional Board will either prescribe waste discharge requirements (WDRs) that will incorporate measures to mitigate potentially significant impacts to water quality and potential public nuisances or issue a waiver of WDRs. For more information regarding Section 404 permitting, contact the Sacramento District of the Corps of Engineers at (916) 557-5250.

Thank you for the opportunity to comment on this Notice of Preparation of a Draft Environmental Impact Report. If you have any questions regarding our comments, please call me at (559) 445-6046.

LISA GYMER
Environmental Scientist

cc: State Clearinghouse, Sacramento

C:\CEQA\fresnoyosemiteairportmasterplanupdate.doc

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Alan C. Lloyd Ph.D.
Secretary for Environmental Protection

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27 July 2005

Kevin Meikle
City of Fresno
4995 East Clinton Way
Fresno, CA 93727

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT, FRESNO YOSEMITE INTERNATIONAL AIRPORT MASTER PLAN UPDATE, SCH# 2005061150, FRESNO COUNTY

Your request for comments on the Notice of Preparation of a Draft Environmental Impact Report for the Fresno Yosemite International Airport Master Plan Update was received on 29 June 2005. The proposed project is to provide a comprehensive view of proposed future airport development. Proposed projects include construction of a consolidated rental car facility and a terminal parking garage, and rehabilitation of Taxiway B4, Taxiway C, HPTWC, AC/PCC Concourse Apron, and Runway 11R-29L.

If construction associated with the development projects will disturb one acre or more, compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated With Construction Activity will be required for potential discharges to surface waters, including ephemeral and intermittent drainages. Before construction begins, the City must submit a Notice of Intent (NOI) to comply with the permit, a site map, and an appropriate fee to the State Water Resources Control Board and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared. The SWPPP must contain at a minimum all items listed in Section A of the General Permit including descriptions of measures taken to prevent or eliminate unauthorized non-storm water discharges, and both temporary (e.g., fiber rolls, silt fences, etc.) and permanent (e.g., vegetated swales, riparian buffers, etc.) best management practices (BMPs) that will be implemented to prevent pollutants from discharging with storm water into waters of the United States. **4-1**

If any individual component of the project will result in construction dewatering discharges, compliance with the NPDES No. CAG995001, General Order No. 5-00-175 for Dewatering and Other Low Threat Discharges to Surface Waters may be required. Before construction begins, the City must submit a NOI to comply with the permit and a filing fee to this Regional Board office. The dewatering General Order is applicable only if the discharge does not contain significant quantities of pollutants, and is less than four months in duration or has an average dry weather flow of less than 0.25 million gallons per day. Otherwise, the City must apply for site-specific waste discharge requirements (WDRs). A representative sample of the construction dewatering discharge would need to be collected and analyzed to demonstrate that no **4-2**

requirements should be incorporated into the Update at the Fresno Yosemite International Airport as appropriate.

4-3 The City's airport administrators will need to continue compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 for Discharges of Storm Water Associated With Industrial Activities and your Storm Water Pollution Prevention Plan (SWPPP; WDID # 5C10S001884)

4-1 If construction associated with the project will disturb one acre or more, compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated With Construction Activity will be required for potential discharges to surface waters, including ephemeral and intermittent drainages. Before construction begins, the proponent must submit a Notice of Intent (NOI) to comply with the permit, a site map, and an appropriate fee to the State Water Resources Control Board and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared. The SWPPP must contain at a minimum all items listed in Section A of the General Permit including descriptions of measures taken to prevent or eliminate unauthorized non-storm water discharges, and both temporary (e.g., fiber rolls, silt fences, etc.) and permanent (e.g., vegetated swales, riparian buffers, etc.) best management practices (BMPs) that will be implemented to prevent pollutants from discharging with storm water into waters of the United States.

4-2 If the project will result in construction dewatering discharges, compliance with the NPDES No. CAG995001, General Order No. 5-00-175 for Dewatering and Other Low Threat Discharges to Surface Waters may be required. Before construction begins, the proponent must submit a NOI to comply with the permit and a filing fee to this Regional Board office. The dewatering General Order is applicable only if the discharge does not contain significant quantities of pollutants, and is less than four months in duration or has an average dry weather flow of less than 0.25 million gallons per day. Otherwise, the proponent must apply for site-specific waste discharge requirements (WDRs). A representative sample of the construction dewatering discharge would need to be collected and analyzed to demonstrate that no constituents of concern are present in quantities that would cause an exceedance of water quality objectives.

4-4 If the project will result in the discharge of dredged or fill material into navigable waters or wetlands (jurisdictional waters), the proponent must obtain a permit pursuant to Section 404 of the Clean Water Act from the US Army Corps of Engineers and a Section 401 Water Quality Certification from this office. The Regional Board will review the Section 401 certification application to ensure that discharges will not violate water quality standards. If the project will result in the discharge of dredged or fill material into wetlands that are determined by the Corps to be non-jurisdictional, the proponent will not be required to obtain a Section 401 Water Quality Certification, but may be required to submit a report of waste discharge (RWD) if the wetlands are waters of the State. The Regional Board will either prescribe waste discharge requirements (WDRs) that will incorporate measures to mitigate potentially significant impacts to water quality and potential public nuisances or issue a waiver of WDRs. For more information regarding Section 404 permitting, contact the Sacramento District of the Corps of Engineers at (916) 557-5250.

If the project will involve the storage of petroleum products in above ground tanks, with a single tank capacity of greater than 660 gallons or a cumulative capacity of greater than 1,320 gallons, the proponent will be subject to State above ground petroleum tank regulations. The proponent must file a storage statement with the SWRCB, pay a facility fee, and prepare a federal spill prevention control and countermeasure plan. 4-5

Thank you for the opportunity to comment on this Notice of Preparation. If you have any questions regarding our comments, please call me at (559) 445-6071.

DAVID INNIS
Environmental Scientist

cc: Aimee Kratovil, Environmental Protection Specialist, Federal Aviation Administration, Western Pacific Region, San Francisco Airports District Office, 831 Mitten Road, Room 210, Burlingame, CA 94010-2733

San Joaquin Valley
Air Pollution Control District

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AIRPORTS DEPARTMENT

July 29, 2005

Reference No. C20050655

Mr. Kevin Meikle
Airports Planning Manager
City of Fresno-Airports
4995 East Clinton Way
Fresno, CA 93727-1525

Subject: Notice of Preparation of Draft Environmental Impact Report (EIR), Master Plan Update at the Fresno Yosemite International Airport (FAT)

Dear Mr.Meikle,

The entire San Joaquin Valley Air Basin is designated non-attainment for ozone and fine particulate matter (PM10 and PM2.5). When the construction, additions, rehabilitation as contained in the Master Plan Update at Fresno Yosemite Airport (FAT) are realized, this project would contribute to the overall decline in air quality due to construction activities and ongoing operational emissions.

The District recommends that the air quality section of the EIR have four main components:

1. **It should provide a description of the regulatory environment and existing air quality conditions impacting the area.** The District has several sources of information available to assist with the existing air quality and regulatory environment section of the EIR. The District's *Guide for Assessing and Mitigating Air Quality Impacts, 2002 Revision* (GAMAQI) contains discussions regarding the existing air quality conditions and trends of the San Joaquin Valley Air Basin, including those pollutants of particular concern: ozone, PM10, and carbon monoxide. In addition, it provides an overview of the regulatory environment governing air quality at the federal, state, and regional levels. The GAMAQI provides air monitoring data and other relevant information for PM-10 and other pollutants. The most recent air quality data for the District is Available at the California Air Resources Board (ARB) website at http://www.arb.ca.gov/html/aqe&m.htm. The air quality section of EPA's Region 9 (which includes information on the San Joaquin Valley Air Basin) can be found at http://www.epa.gov/region09/air/index.html. Additionally, this section should also contain a discussion regarding growth projections that Fresno County provided to the District (through the Council of Fresno County Governments) for inclusion in the Ozone and PM10 Attainment Plans and any impacts this project will have on Federal Conformity for Fresno County and the San Joaquin Valley Air Basin. Lastly, this section should clearly describe the air pollution regulatory authority of the District for the various emission sources at FAT caused by this project. 5-1

2. **It should provide estimates of existing emissions and projected pollutant emissions related to the increase in project source emissions and vehicle use, along with an analysis of the effects of these increases.** The EIR should include the methodology, model assumptions, inputs and results for pollutant emissions. The cumulative impact analyses should consider current existing and planned development both within the project area and in surrounding areas. The EIR needs to address the short-term and long term local and regional adverse air quality impacts associated with the operation of construction equipment (reactive organic gases, nitrogen oxides, carbon monoxide, and PM10) and emission generated from 5-2

5-2 stationary and mobile sources. Additionally, the EIR should quantify emissions that are individually small but cumulatively significant sources of pollution. This includes, but is not limited to, emissions from natural gas combustion for space and water heating and emissions from gas-powered lawn and garden maintenance equipment. URBEMIS Version 8.7.0. should be used to estimate construction and operational emissions. This version of the model is available at the following website: www.urbemis.com or www.aqmd.gov/ceqa/urbemis.html.

5-1 3. **It should identify and discuss all existing District regulations that apply to the project.**
It should identify and discuss all existing District regulations that apply to the project. It would be appropriate to discuss proposed rules that are being developed that would apply to the proposed project. Current rules and regulations are available on the District's website at http://www.valleyair.org/rules/1ruleslist.htm. District rules and regulations are periodically revised, and new regulations are promulgated. The District strongly advises the City to contact the District for any rule updates and new rules when the project development begins. Current District rules and regulations applicable to the proposed project are requirements.

4. **It should identify and discuss all feasible measures that will reduce air quality impacts generated by the project.**
"Feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors: (California Code of Regulations (CCR § 15364)). The California Environmental Quality Act (CEQA) requires that EIRs "describe measures which could minimize significant adverse impacts" (CCR §15126(c)). Additionally, the CCR requires that "a public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures that would substantially lessen any significant effects that the project would have on the environment " (CCR § 15021(a)(2)). For each potential adverse impact, mitigation measures should be identified to reduce impacts below air quality threshold levels of significance. Therefore, the EIR should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. The reduction of air quality impacts from implementation of mitigation measures should be quantified to the extent possible. If a measure cannot be quantified a qualitative discussion should be provided explaining the benefits of the proposed mitigation measure. The EIR should discuss how project design modifications could reduce
5-3 project impacts

Mitigation measures are emission reduction measures beyond those required in Component 3, above. This section should provide an analysis of existing mass transit/bicycle access to or near the site, and discuss if additional infrastructure will be needed. The section should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. Site design, equipment alternatives, construction and operational measures that would reduce emissions should be identified. It should also analyze opportunities to mitigate urban heat island effects. The reduction of air quality impacts from implementation of mitigation measures should be quantified when possible. The EIR should discuss how the project design would encourage alternative transportation (including car pool parking), pedestrian and bicycle access/infrastructure, smart growth design, energy efficient project and building design, reduce urban heat island impacts, and business programs that further reduce air pollution in the valley (such as carpooling).

Mitigation measures must be included in the EIR that reduce the emissions of reactive organic gases, nitrogen oxides, and PM10 to the fullest extent possible. Site design and building construction measures that would reduce air quality impacts should be included. The District's *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) describes these features. The current GAMAQI can be found at http://www.valleyair.org/transportation/ceqa_guidance_documents.htm. The Local Government Commission (LGC) website, http://www.lgc.org, contains valuable information and resources on subjects from street design to energy efficiency. The use of the principles of the document *Landscape of Choice* is encouraged to reduce air quality impacts.

Components of this project may be subject to the permitting requirements of the District and require a Permit to Operate (PTO). Any equipment subject to the District's PTO requirements must obtain an Authority to Construct (ATC) from the District. Construction of equipment, which requires an ATC, and intimately related appurtenances such as foundations and utility hookups for the equipment, cannot begin until an ATC is obtained. Construction of equipment not requiring a District permit is not subject to this ATC requirement. Depending upon the nature and complexity of the application and staff workload, ATC approval can take several months. For further information, the City of Fresno should contact the District's Small Business Assistance (SBA) Office at (559) 230-5888, or our Permit Services Section at (559) 230-5900. For additional information on applicable rules and permitting, contact the District's SBA Office or Permit Services Section. 5-4

District staff is available to meet with you to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call me at (559) 230-5820 and provide the reference number at the top of this letter.

Sincerely,

Hector R. Guerra
Senior Air Quality Planner

c: file

CLOVIS UNIFIED SCHOOL DISTRICT

1450 HERNDON AVENUE
CLOVIS, CA 93611-0567
559.327.9000
www.clovisusd.k12.ca.us

July 26, 2005

Aimee Kratovil
Environmental Protection Specialist
Federal Aviation Administration
Western Pacific Region
831 Mitten Road, Room 210
Burlingame, CA 94010-1303

Kevin Meikle
Planning Manager
City of Fresno – Airports
4995 East Clinton Way
Fresno, CA 93727-1525

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Associate Superintendent
William C. McGuire
Associate Superintendent
Janet L. Young, Ed.D.
Associate Superintendent

Subject: NOI/NOP for FYI Airport Master Plan Update EA/EIR

Dear Ms. Kratovil and Mr. Meikle:

Our main concern regarding the FYI Airport Master Plan Update relates to the noise and safety aspects of airport operations in relation to existing and planned schools.

The Clovis Unified School District operates Temperance-Kutner Elementary School (enrollment 635, 2004-05 school year) within the boundaries of the current FYI Airport and Environs Plan. The school is located at the southeast corner of Olive and Armstrong Avenues and is bisected by the 60 CNEL noise contour. The school site also straddles the boundary between Approach Protection Zones III and IV.

The District is planning a new elementary school at the southeast corner of Dakota and Armstrong Avenues, which is within two nautical miles of Runway 11L/29R. As required by California Education Code Section 17215, the California Department of Transportation, Division of Aeronautics, analyzed the site during the site approval process and found that the site is "considered to provide a level of safety suitable for a school site."

We would like the environmental document to address how the project will affect existing and planned schools. Specifically, we would like to know whether noise levels will increase in relation to existing or planned school facilities and whether there are any potential safety concerns related to projected increases in air traffic or changes in flight patterns. 6-1

Thank you for the opportunity to provide input as part of the NOI/NOP process. We look forward to receiving a copy of the draft EA/EIR.

Sincerely,

Bill McGuire
Associate Superintendent
Administrative Services

cc: Walt Byrd, Assistant Superintendent, Facility Services

July 15, 2005

RECEIVED
05 JUL 19 PM 12: 18
CITY OF FRESNO
AIRPORTS DEPARTMENT

To: Kevin Meikle, Airports Planning Manager
E-mail: Kevin.Meikle@fresno.gov

From: Fresno Neighborhood Alliance
P.O. Box 5956
Fresno, CA 93755
E-mail: jonijohnson@mac.com

Re: Scoping Comments For Fresno Yosemite International Airport (FAT)
Master Plan Update

Dear Mr. Meikle:

This letter is to correct an error in the Comments sent to you on July 11, 2005.

We would like to correct a typo in Comment I. from ".....and 5 (No Airport):" to read ".....and 5 (New Airport):".

There is a corrected transcript dated July 15, 2005 enclosed. Please accept it in place of the one dated July 11, 2005.

Sincerely,

Joni Johnson, Board Director

Fresno Neighborhood Alliance
Board of Directors

July 15, 2005

To: Kevin Meikle, Airports Planning Manager
E-mail: Kevin.Meikle@fresno.gov

From: Fresno Neighborhood Alliance
P.O. Box 5956
Fresno, CA 93755
E-mail: joniljohnson@mac.com

RE: Scoping Comments for Fresno Yosemite International Airport (FAT) Master Plan Update

Dear Mr. Meikle:

Fresno Neighborhood Alliance (FNA) is a nonprofit organization networking with neighborhoods and organizations in the Fresno Metro Area on life quality issues. One of our concerns is adequate Mitigation Measures for area projects and, therefore, we are submitting the following scoping comments in regards to the above project:

These comments refer to the multifaceted project at FAT including, but not limited to, widening and extending Runway 11R-29L & constructing a Parking Garage and the following alternative projects:

1. FAT Improvements
2. No Action
3. Develop or Improve Chandler or SSPA Airports instead of FAT
4. Use Alternate Modes of Transportation
5. Develop a New Airport in the Region at a Different Site

FNA COMMENTS:

I. For Alternatives 1 (FAT), 3 (Chandler Airport &/or Sierra Sky Park) and 5 (New Airport):

7-1

A. Estimate all relevant contours, including noise, for any runway expansion showing via schematics, diagrams, statistics, maps, etc. the results for the affected uses including residential, schools, other sensitive uses and clear zones

B. Establish mitigation measures including for noise

C. Approximate costs involved and proposed funding measures for the mitigation measures and other costs

* Also, for Alternative 3 (Chandler &/or Sierra Sky Park) detail what development/ improvements would occur at Chandler Airport/&/or Sierra Sky Park [a privately owned Public use airport]

II. For Alternative 4 (Alternate Modes of Transportation):

A. Define the types of proposed transportation modes including mass transit 7-2

B. Identify operational authorities for the various transportation modes, their approximate costs, and cite the proposed sources of funding

III. For Alternative 5 (Develop a New Airport at a Different Site):

A. Evaluate the effects on the economic vitality/ development of the city of Fresno

B. Provide the cost effectiveness of this alternative based on national data including, but not limited to: 7-3

1. When, where, how much it cost & how long it took the last time an entire airport was built

2. Projections in today's dollars on how much it would cost to duplicate FAT plus the proposed project improvements in today's dollars including the cost of land; the needed infrastructure such as roads, sewer, water , etc. needed on site and servicing the site

3. Identifying the proposed funding sources

Thank you for allowing us to comment.

Sincerely,

Joni Johnson, Board Director
on behalf of
Fresno Neighborhood Alliance
Board of Directors

> From: Joan Johnson <jonijohnson@mac.com>
> Date: Fri Sep 2, 2005 2:17:35 PM US/Pacific
> To: "Kevin Meikle" <Kevin.Meikle@ci.fresno.ca.us>
> Subject: Re: Mitigation of Existing Noise Problems at FAT
>
> Kevin Meikle-
>
> The E-mail referenced was sent to you by Joni Johnson on behalf of FNA.
> Sorry I accidentally sent out on my husband's E-mail address.
> Thanks for your reply.
> Joni Johnson
>
> Thursday, September 1, 2005, at 11:55 AM, Kevin Meikle wrote:
>
>> George, thank you for your comments and observations. I have
>> forwarded this on to URS for consideration as part of the EA/EIR
>> process. By copy of this email we will also look into (1) how the
>> mitigation measures in our recent Part 150 study will address these
>> issues and (2) the specific noise issues that you describe below
>> internally.
>>
>> Thanks again for your comments, Kevin.
>>
>>>>> George Johnson <george.johnson14@comcast.net> 9/1/2005 4:22 AM >>>
>> August 30, 2005
>>
>> To: Kevin Meikle, Airports Planning Manager
>> E-mail: Kevin.Meikle @fresno.gov
>>
>> From: Fresno Neighborhood Alliance
>> P.O. Box 5956
>> Fresno, CA 93755
>> E-mail: jonijohnson@mac.com
>>
>> RE: Mitigation of Existing Noise Problems at Fresno Air Terminal (FAT)
>>
>> Dear Mr. Meikle:
>>
>> Fresno Neighborhood Alliance (FNA) contacted you earlier on scoping
>> comments for the FAT Master Plan Update. We are writing again to give
>> our comments on existing noise problems at FAT that have come to our
>> attention while networking with neighborhood groups .
>>
>> Evidently, after midnight hours there is loud noise from aircraft
>> startups / warmups at FAT . This is heard primarily in a southerly to
>> southeasterly direction and was reported as a nuisance to homeowners
>> miles from the airport.
>>
>> Also, the in-flight F-16 noise was reported as very loud noise 8-1
>> nuisance- even rattling china. Again the predominant complaints came
>> from south to southeasterly neighborhoods. Since there may be an
>> increase in the number of F-16's housed at the airport, this is of
>> critical concern to us and the affected neighbors.
>>

8-1

>> We request that mitigation measures be established to handle these
>> problems. Sound barriers, hush houses, and rules for F-16 noise
>> mitigation are some options which should be considered. We would like
>> to see mitigation measures established as soon as possible.
>>
>> We also feel that you should give your consultants on the FAT Master
>> Plan Update a copy of this letter to make sure they consider these
>> noise problems including increased F-16 airport use.
>>
>> Thank you in advance for your cooperation in resolving these
>> problems.
>>
>> Sincerely,
>>
>> Joni Johnson, Board Director
>> on Behalf of Fresno Neighborhood Alliance
>> Board of Directors
>>
>>
>

M E M O

To: Aimee Kratovil, FAA; Kevin Meikle, City of Fresno

From: Connell Dunning, EPA; Rebecca Rosen, EPA

Subject: EPA Comments related to Air Quality - Fresno Yosemite International Airport Master Plan Update

Date: October 6, 2005

EPA Comments related to Air Quality - Fresno Yosemite International Airport Master Plan Update

The San Joaquin Valley Air Basin experiences high, frequent, and broadly distributed particulate matter smaller than 2.5 microns in diameter (PM 2.5) concentrations during the winter. The San Joaquin Valley Air Basin is one of two areas in the U.S. that violates the 24-hour NAAQS for PM2.5 in addition to the annual PM2.5 NAAQS. For ozone, the San Joaquin Valley Air Basin typically exceeds the 8-hour ozone NAAQS more than 100 days each year. Due to the severity of the PM 2.5 and ozone levels in the San Joaquin Valley, EPA provides the following air quality recommendations for consideration as the Fresno Yosemite International Airport Master Plan is updated.

I. Airport Related Emissions
EPA recommends the following mitigation measures to reduce airport-related emissions. All mitigation commitments should be incorporated into the EA/EIR as conditions of FAA approval for the project:

· For all on and off airport diesel sources under FAA and/or City of Fresno control, use ultra low sulfur fuel (<15 parts per million by volume), use new (>1996) diesel engines, replace diesel engines with alternative clean fuel engines, use alternate fuel sources, and install particulate filters. **9-1**

· Require the cleanest technology (in terms of fuel, gas-electric hybrid, or electric vehicles) for all transport vehicles for airport activities, including but not limited to: shuttle buses, shared ride vehicles, terminal transport buses, public transit, taxi cabs, and delivery vehicles. **9-2**

· Expedite commitments to reduce ground service equipment (GSE) use. **9-3**

· Address how the Master Plan Update can incorporate FAA's Voluntary Airport Low Emissions (VALE) program and commit to specific methods to reduce emissions associated with aircraft fueling such as underground hydrant fuel systems and electric hydrant carts. **9-4**

II. Auxiliary Power Unit (APU) Emissions
EPA's recommended additional measures for incorporation into the EA/EIR to reduce APU emissions are included below. **9-5**

Recommendations:
Quantify APU emissions to reflect specific activities and uses during aircraft operations, with a breakdown highlighting those emissions

9-5 which can be reasonably reduced by using electric power grid and those where electric power grid can not be utilized effectively.
Reduce APU emissions through incentives or lease agreements promoting use of gate power and preconditioned air and reduction of taxi-in/taxi-out time through aircraft on-tarmac traffic mitigation strategies.
Commit to further measures to minimize APU emissions from specific aircraft activities where emissions can be reasonably reduced.

II. Construction Mitigation Measures

EPA recommends FAA and City of Fresno incorporate multiple measures to reduce the impacts resulting from future construction associated with this project.

Recommendations:

9-6 Due to the serious nature of the air quality conditions in the Central Valley, we recommend that the best available control measures for criteria pollutants be implemented at all times. EPA recommends implementing the suspension of earth-moving or similar activities during future high wind events, as well as other measures as discussed in San Joaquin Valley's "Natural Events Action Plan" for PM10 exceedances due to high winds. We recommend that FAA and City of Fresno incorporate a Construction Mitigation Plan into the EA/EIR. The EA/EIR should include a commitment to implement the Construction Mitigation Plan as a condition of FAA approval of the project to minimize criteria pollutant emissions. We recommend that the Construction Mitigation Plan include the following measures:

Fugitive Dust Source Controls:

9-7
- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for surface stabilization under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Maintain and tune engines per manufacturer’s specifications to perform at EPA certification levels and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturers recommendations
- Require that leased equipment be 1996 model or newer unless cost exceeds 110 percent or average lease cost. Require 75 percent or more of total horsepower of owned equipment to be used be 1996 or newer models.

· Use particulate traps where suitable.

Administrative controls:

· Identify where implementation of mitigation measures is rejected based on economic infeasibility.

· Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.)

· Use cleanest available fuel engines in construction equipment and identify opportunities for electrification.

· Develop a construction traffic and parking management plan that minimizes traffic interference and maintain traffic flow

· Incorporate programs such as Leadership in Energy and Environmental Design (LEED)

9-7

SECTION 3.3

AGENCY/PUBLIC SCOPING MEETING RESPONSE LETTER FROM CITY OF FRESNO

Date, 2005

City of Fresno – Airports
Kevin Meikle
Airports Planning Manager
4995 East Clinton Way
Fresno, CA 93727-1525
Fax: (559) 498-5549
Email: Kevin.Meikle@fresno.gov

SUBJECT: Scoping Comments for FAT Environmental Assessment / Environmental Impact Report (EA/EIR); Project No. 10136

Dear :

Thank you for your comments related to the scoping of the Fresno Yosemite International Airport Master Plan Update EA/EIR. Your comments have also been forwarded to the FAA and URS, the consultant preparing the documentation. Your name will be added to the agency/public participation list for the remainder of the project.

The Master Plan is near completion and we are just getting underway with the environmental review. Your input along with comments and suggestions from agencies, and other interested parties will be considered carefully as we identify and address a range of potential issues related to future proposed projects.

The focus of the analysis in the EA will be on issues in the proposed near-term (5-year) development from the Master Plan. Longer-term development will be addressed in the EA from a cumulative viewpoint in accordance with National Environmental Policy Act (NEPA) regulations. The EIR will address the near-term (5-year) and long-term (20-year) proposed development in accordance with California Environmental Quality Act (CEQA). More detail analysis will be concentrated on the near-term.

After the environmental analysis is complete and the Draft EA/EIR has been released, a Public Hearing will be held to solicit input on the findings. We estimate this to take place within the next 6-12 months, provided no unforeseen circumstances. We will notify you in advance to enable you to continue in the public participation process.

Sincerely,

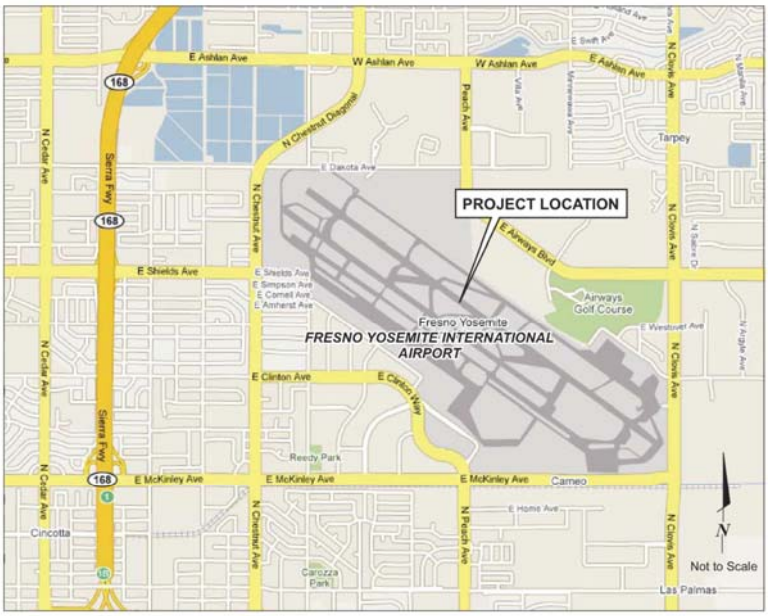
Kevin Meikle
Airports Planning Manager

APPENDIX A2
NOTICE OF AVAILABILITY
PUBLIC MEETING ON THE DRAFT EA/EIR

NOTICE OF AVAILABILITY/COMPLETION OF
DRAFT ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT (SCH # 2005061150)

Improvements Proposed for Fresno Yosemite International Airport

Pursuant to the requirements of the California Environmental Quality Act (CEQA) (Section 15087-Guidelines), notice is hereby given that a joint Draft Environmental Assessment/Environmental Impact Report (Draft EA/EIR) has been prepared for proposed Improvement Projects at Fresno Yosemite International Airport (SCH # 2005061150). The City of Fresno, Airports Department prepared of this document in coordination with the Federal Aviation Administration (FAA). The EA has been prepared according to the guidance of FAA Order 1050.1E, Environmental Impacts: Policies and Procedures, FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, and the Council on Environmental Quality Regulations (40 CFR 1500-1509). Additionally, CEQA Guidelines, Title 14. California Code of Regulations were followed for preparation of the EIR. The Proposed Improvements considered in the environmental documentation includes projects that would be implemented at the Airport between 2009 and 2025. Additionally, updates to the County of Fresno Airport Land Use Plan, and a general plan amendment to update the City of Fresno Airport and Environs Plan would also take place once the EIR has been certified. The Draft EA/EIR evaluated the Proposed Project for 2009-2014 at a project level to satisfy both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) requirements. The 2015-2025 Proposed Project is discussed at the programmatic level and includes the known potential cumulative impacts anticipated in the region to meet the requirements of CEQA.



Source:
Google Maps, 2008

The affected area at the Airport is approximately 1,265 acres, and is generally bound by East McKinley Avenue, East Clinton Avenue, North Chestnut Avenue, East Dakota Avenue, East Airways Boulevard, and North Clovis Avenue. The Airport is designated as a public facility in the 2025 Fresno General Plan, and is zoned M-1 (Light Manufacturing). No changes to the City of Fresno Land Use Zoning are proposed. However, to establish consistency with the updated Airport and Environs Plan an amendment to the City of Fresno 2025 General Plan shall be required.

The Draft EA/EIR found that implementation of the project would not result in significant environmental effects that could not be mitigated to a less than significant level with implementation of mitigation measures or best management practices, with the exception of farmlands.
Farmlands under CEQA were determined to be significant and unavoidable due to the conversion of farmland for a stormwater detention basin.

Your comments on the Draft EA/EIR are encouraged. The Draft EA/EIR is available for review during normal business hours at the following locations:

• City of Fresno – Airports Department, 4995 E. Clinton Way, Fresno, California • City of Fresno – Planning and Development Department, Room 3043, Third Floor, City Hall, 2600 Fresno Street, Fresno, California • County of Fresno – Planning and Land Use Department, 2220 Tulare Street, 6th Floor, Fresno, California	• City of Clovis – Planning and Development Department, 1033 5th Street, Clovis, California • Council of Fresno County Governments, 2035 Tulare Street, Suite 201, Fresno, California • County of Fresno – Main Library, Reference Department, 2420 Mariposa Street, Fresno, California. • County of Fresno – Cedar-Clinton Library, 4150 E. Clinton Ave, Fresno, California

It is essential that any written comments be received beginning Friday, October 23, 2009, through no later than <u>5:00 p.m. on December 7, 2009,</u> at which time the public review period of the Draft EA/EIR will close. The Agencies and the Public are also invited to attend an informational meeting at **10:00 a.m. on November 18, 2009 at the Airport Holiday Inn, 5090 East Clinton Way, Fresno, California**. After the close of the 45-day comment period, a Final EA/EIR will be prepared and will include all comments received on the Draft EA/EIR and the City's response to the comments. Please submit your comments on Draft EA/EIR SCH # 2005061150 to:

Kevin Meikle – Airports Planning Manager
City of Fresno-Airports
4995 East Clinton Way
Fresno, California 93727-1525
Fax: (559) 498-5549 Email: Kevin.Meikle@fresno.gov

FRESNO YOSEMITE INTERNATIONAL AIRPORT IMPROVEMENTS PROJECT
DRAFT ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT
NOA/NOC MAIL DISTRIBUTION LIST

FEDERAL AGENCIES		
David Durham Natural Resources Conservation Service U.S. Department of Agriculture 4625 West Jennifer Avenue Suite 125 Fresno, CA 93722	Kevin Roukey Army Corps of Engineers Central Valley Office 1325 J Street Sacramento, CA 95814-2922	Michael Jackson Area Manager Bureau of Reclamation Department of the Interior South-Central California Office 1243 N Street Fresno, CA 93721-1813
Jim Grove, Environmental Protection Specialist Environmental Protection Agency Region IX Air and Toxics Program 75 Hawthorne Street San Francisco, CA 94105	Doug Pomeroy Federal Aviation Administration 831 Mitten Road, Suite 210 Burlingame, CA 94010	Susan Moore, Field Supervisor US Fish & Wildlife Services Sacramento Fish & Wildlife Office 2800 Cottage Way, W-2605 Sacramento, CA 95825-1846
STATE AGENCIES		
Roberto Buendia Caltrans Division of Aeronautics 1120 N Street, Rm 3300, MS# 40 Sacramento, CA 95814	Tom Kovac Department Toxic Substances Control – Region 1 CAL-EPA 1515 Tollhouse Road Clovis, CA 93612	Moses Stittes and Marc Birnbaum Caltrans District 6 PO Box 12616 Fresno, CA 93778
Jess Cooper, Sector Superintendent California State Parks – San Joaquin District 5290 Millerton RD Friant, CA 93626	California Wildlife Conservation Board Department of Fish & Game 1807 13th Street #103 Sacramento, CA 95814-7137	State Water Resources Control Board PO Box 100 Sacramento, CA 95812-0100
Lonnie Wass California Regional Water Quality Control Board 1685 E Street Fresno, CA 93706	Paul Calkins Office of Emergency Services Region V 2550 Mariposa Street, Room B-181 Fresno, CA 93721	San Joaquin Valley Air Pollution Control District 1990 E Gettysburg Avenue Fresno, CA 93726
Julie Vance Department of Fish & Game Region 4 1234 E Shaw Avenue Fresno, CA 93710	Milford Wayne Donaldson, FAIA Office of Historic Preservation PO Box 942896 Sacramento, CA 94296	Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814
LOCAL AGENCIES		
COUNTY OF FRESNO		
John Navarrette County Administration Officer County of Fresno 2281 Tulare Street Hall of Records #300 Fresno, CA 93721	Bernard Jimenez Development Services Manager County of Fresno 2220 Tulare Street, 6th Floor Fresno, CA 93721	John Adams Public Works & Planning County of Fresno – ALUC 2220 Tulare Street, 6th Floor Fresno, CA 93721
Bill Stretch Chief Engineer Fresno Irrigation District 2907 S Maple Avenue Fresno, CA 93725	Ron Peterson Fresno County Transportation Authority 2220 Tulare Street, Suite 411 Fresno, CA 93721	Jerry Lakeman or Daniel Rourke Fresno Metropolitan Flood Control District 5469 E Olive Avenue Fresno, CA 93727

Richard Ballantyne Executive Officer Fresno County Local Agency Formation Commission 2115 Kern Street, Suite 310 Fresno, CA 93721	Tony Boren Executive Director Council of Fresno County Governments 2035 Tulare Street, Suite 201 Fresno, CA 93721	Fresno County Fire Protection District 210 S Academy Avenue Sanger, CA 93657
Renee Devere-Oki Council of Fresno County Governments 2035 Tulare Street, Suite 201 Fresno, CA 93721	Clark Thompson Council of Fresno County Governments 2035 Tulare Street, Suite 201 Fresno, CA 93721	
City of Fresno		
Ashley Swearengin Mayor Mayor's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Blong Xiong Council Member, District 1 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Andreas Borgeas Council Member, District 2 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600
Cynthia Sterling Council President, District 3 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Larry Westerlund Council Member, District 4 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Mike Dages Council Member, District 5 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600
Lee Brand Council Member/Redevelopment Agency Chair, District 6 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Henry T. Perea Council Member, District 7 City Council's Office 2600 Fresno Street, Room 2097 Fresno, CA 93721-3600	Andy Souza City Manager City Manager's Office 2600 Fresno Street, Room 2064 Fresno, CA 93721-3601
John Dugan Director Planning & Development Dept. 2600 Fresno Street, Room 3065 Fresno, CA 93721-3604	Bruce Rudd Assistant City Manager City Manager's Office 2600 Fresno Street, Room 2064 Fresno, CA 93721-3601	Russ Widmar, AAE Director of Aviation Department of Airports 4995 E Clinton Way Fresno, CA 93727
Mike Sanchez Planning & Development Dept. City of Fresno 2600 Fresno Street, Room 3065 Fresno, CA 93721	Patrick Wiemiller Public Works Director Department of Public Works 2600 Fresno Street, Room 4016 Fresno, CA 93721-3615	Director Economic Development Dept. City of Fresno 2600 Fresno Street, Room 3076 Fresno, CA 93721
Michael Hanson Superintendent Fresno Unified School District 2309 Tulare Street Fresno, CA 93721	Chuck McCully Interim Superintendent Central Unified School District 4605 N Polk Fresno, CA 93722	
CITY OF CLOVIS		
Mayor Harry Amstrong City of Clovis 1033 5th Street Clovis, CA 93612	Mayor Pro Tem Jose Flores City of Clovis 1033 5th Street Clovis, CA 93612	Councilmember Lynne Ashbeck City of Clovis 1033 5th Street Clovis, CA 93612

Council Member Nathan F. Magsig City of Clovis 1033 5th Street Clovis, CA 93612	Council Member Bob Wahlen City of Clovis 1033 5th Street Clovis, CA 93612	Kathleen A. Millison City Manager's Office City of Clovis 1033 5th Street Clovis, CA 93612
Mike Leonardo Public Utilities City of Clovis 155 North Sunnyside Clovis, CA 9361	Dwight Kroll Director, Planning Division City of Clovis 1033 5th Street Clovis, CA 93612	David Fey Deputy City Planner City of Clovis 1033 5th Street Clovis, CA 93612
David Cash, Ed.D. Superintendent Clovis Unified School District 1450 Herndon Avenue Clovis, CA 93611-0599	Steve Ward Associate Superintendent Clovis Unified School District 1450 Herndon Avenue Clovis, CA 93611-0599	
OTHER: ENVIRONMENTAL GROUPS		
San Joaquin River Conservancy 5469 E Olive Avenue Fresno, CA 93727	San Joaquin River Parkway & Conservation Trust 11605 Old Friant Road Fresno, CA 93730	Sierra Club Tehipite Chapter PO Box 5396 Fresno, CA 93755
Sierra Valley Resource Conservation District PO Box 50 Vinton, CA 96135		
Other: Economic Development Groups		
Fresno County Farm Bureau 1274 W Hedges Avenue Fresno, CA 93728	Al Smith President and CEO Chamber of Commerce 2331 Fresno Street Fresno, CA 93721	Central California Hispanic Chamber of Commerce 2331 Fresno Street Fresno, CA 93721-1801
Jan Minami Downtown Association of Fresno 2014 Tulare Street #417 Fresno, CA 93721	Steve Geil President & CEO Economic Development Corp. 906 N Street Fresno, CA 93721	Keith Kelley Fresno West Coalition for Economic Development 302 Fresno Street, Suite 212 Fresno, CA 93727
Other: Homeowners and Neighborhood Groups		
Bullard Area Homeowners PO Box 5700 Fresno, CA 93755-5700	Fig Garden Homeowners Association PO Box 5796 Fresno, CA 93755	Sierra Sky Park Homeowners Association 7081 N Marks, Box 104-250 Fresno, CA 93711
Sunnyside Fancher Creek Association 675 N Burgan Avenue Fresno, CA 93727	Sunnyside Property Owners Association PO Box 8096 Fresno, CA 93747	Woodward Lakes Homeowners Association 10250 N Westshore Drive Fresno, CA 93720
Woodward Park Homeowners Association C/O Joan Heisdorf 341 E Niles Avenue Fresno, CA 93720	Joni Johnson Board Director Fresno Neighborhood Alliance P.O. Box 5956 Fresno, CA 93755	

Last Updated: October 21, 2009

NOTICE OF AVAILABILITY/COMPLETION OF
DRAFT ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT (SCH # 2005061150)

Improvements Proposed for Fresno Yosemite International Airport

Pursuant to the requirements of the California Environmental Quality Act (CEQA) (Section 15087-Guidelines), notice is hereby given that a joint Draft Environmental Assessment/Environmental Impact Report (Draft EA/EIR) has been prepared for proposed Improvement Projects at Fresno Yosemite International Airport (SCH # 2005061150). The City of Fresno, Airports Department prepared of this document in coordination with the Federal Aviation Administration (FAA). The EA has been prepared according to the guidance of FAA Order 1050.1E, Environmental Impacts: Policies and Procedures, FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, and the Council on Environmental Quality Regulations (40 CFR 1500-1509). Additionally, CEQA Guidelines, Title 14. California Code of Regulations were followed for preparation of the EIR. The Proposed Improvements considered in the environmental documentation includes projects that would be implemented at the Airport between 2009 and 2025. Additionally, updates to the County of Fresno Airport Land Use Plan, and a general plan amendment to update the City of Fresno Airport and Environs Plan would also take place once the EIR has been certified. The Draft EA/EIR evaluated the Proposed Project for 2009-2014 at a project level to satisfy both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) requirements. The 2015-2025 Proposed Project is discussed at the programmatic level and includes the known potential cumulative impacts anticipated in the region to meet the requirements of CEQA.

The affected area at the Airport is approximately 1,265 acres, and is generally bound by East McKinley Avenue, East Clinton Avenue, North Chestnut Avenue, East Dakota Avenue, East Airways Boulevard, and North Clovis Avenue. The Airport is designated as a public facility in the 2025 Fresno General Plan, and is zoned M-1 (Light Manufacturing). No changes to the City of Fresno Land Use Zoning are proposed. However, to establish consistency with the updated Airport and Environs Plan an amendment to the City of Fresno 2025 General Plan shall be required.

The Draft EA/EIR found that implementation of the project would not result in significant environmental effects that could not be mitigated to a less than significant level with implementation of mitigation measures or best management practices, with the exception of farmlands.
Farmlands under CEQA were determined to be significant and unavoidable due to the conversion of farmland for a stormwater detention basin.

Your comments on the Draft EA/EIR are encouraged. The Draft EA/EIR is available for review during normal business hours at the following locations:

- City of Fresno - Airports Department, 4995 E. Clinton Way, Fresno, California
- City of Fresno - Planning and Development Department, Room 3043, Third Floor, City Hall, 2600 Fresno Street, Fresno, California
- County of Fresno - Planning and Land Use Department, 2220 Tulare Street, 6th Floor, Fresno, California
- City of Clovis - Planning and Development Department, 1033 5th Street, Clovis, California
- Council of Fresno County Governments, 2035 Tulare Street, Suite 201, Fresno, California
- County of Fresno - Main Library, Reference Department, 2420 Mariposa Street, Fresno, California.
- County of Fresno - Cedar-Clinton Library, 4150 E. Clinton Ave, Fresno, California

It is essential that any written comments be received beginning Friday, October 23, 2009, through no later than 5:00 p.m. on December 7, 2009, at which time the public review period of the Draft EA/EIR will close. The Agencies and the Public are also invited to attend an informational meeting **at 10:00 a.m. on November 18, 2009 at the Airport Holiday Inn, 5090 East Clinton Way, Fresno, California.** After the close of the 45-day comment period, a Final EA/EIR will be prepared and will include all comments received on the Draft EA/EIR and the City's response to the comments. Please submit your comments on Draft EA/EIR SCH # 2005061150 to:

Kevin Meikle - Airports Planning Manager
City of Fresno-Airports
4995 East Clinton Way
Fresno, California 93727-1525
Fax: (559) 498-5549 Email: Kevin.Meikle@fresno.gov

227258

NOTICE OF AVAILABILITY/COMPLETION OF
DRAFT ENVIRONMENTAL ASSESSMENT/ENVIRONMENTAL IMPACT REPORT (SCH # 2005061150)

Improvements Proposed for Fresno Yosemite International Airport

TIME CHANGE NOTICE

The informational public meeting on the Draft EA/EIR has changed from 10:00 a.m. to 5:30 p.m. The public is invited to attend this meeting on November 18, 2009 at the Airport Holiday Inn, 5090 East Clinton Way, Fresno, California. This information is also available on the City of Fresno website http:www.fresno.gov/DiscoverFresno/Airports/Notices.htm

Fresno Yosemite International Airport Improvement Projects

Environmental Assessment (EA) and Environmental Impact Report (EIR)

Public Information Meeting

November 18, 2009

5:30 PM

Airport Holiday Inn, 5090 East Clinton Way

Fresno, California

WELCOME

- Sign in at table near entrance
- Pick up copy of meeting materials
- To provide verbal comment tonight, fill out a speaker card
- To comment in writing use the provided comment sheet
  - Drop off at the end of the meeting
  - Mail or fax later
- Please hold comments and questions until end of presentation

AGENDA

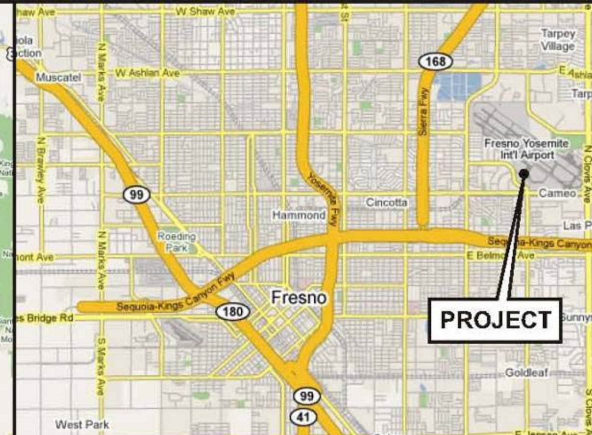
- Introductions
- Project Overview
- Draft EA-EIR
- Public Comments

INTRODUCTIONS

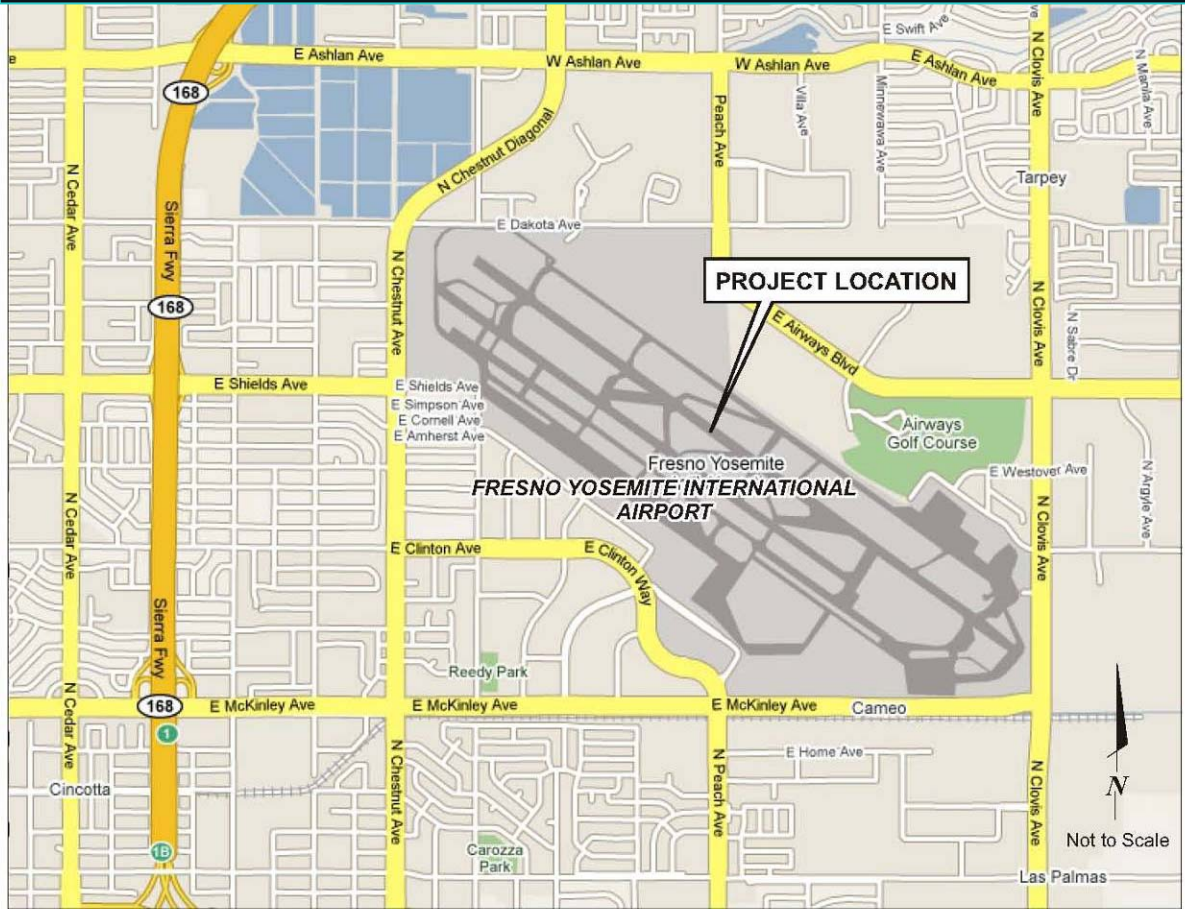
- Kevin Meikle, Airports Planning Manager, City of Fresno
- Douglas Pomeroy, Federal Aviation Administration, Environmental Protection Specialist
- David Reel, URS, Environmental Project Manager
- Meenakshi Singh, Airports Project Manager, City of Fresno

PROJECT OVERVIEW

PROJECT
Modesto
San Jose
Merced
Fremont
Salinas
Madera
Clovis
Fresno
Sanger
Selma
Visalia
Hanford
Tulare
Coalinga


W Shaw Ave
W Ashlan Ave
Muscatel
Tarpey Village
Fresno Yosemite Int'l Airport
Cameo
Hammond
Cincotta
Roeding Park
Fresno
Sequoia-Kings Canyon Fwy
PROJECT
Goldleaf
West Park

LOCATION


E Ashlan Ave
W Ashlan Ave
W Ashlan Ave
E Ashlan Ave
E Swift Ave
168
Sierra Fwy
N Cedar Ave
N Chestnut Diagonal
Peach Ave
Villa Ave
Minnewawa Ave
N Clovis Ave
N Manila Ave
Tarpey
E Dakota Ave
PROJECT LOCATION
E Airways Blvd
N Chestnut Ave
N Sabre Dr
E Shields Ave
E Shields Ave
E Simpson Ave
E Cornell Ave
E Amherst Ave
Airways Golf Course
Fresno Yosemite
FRESNO YOSEMITE INTERNATIONAL AIRPORT
E Westover Ave
N Argyle Ave
E Clinton Ave
E Clinton Way
Reedy Park
E McKinley Ave
E McKinley Ave
E McKinley Ave
Cameo
E Home Ave
N Peach Ave
Cincotta
Carozza Park
Las Palmas
N
Not to Scale

YOUR AIRPORT, SERVING THE REGION

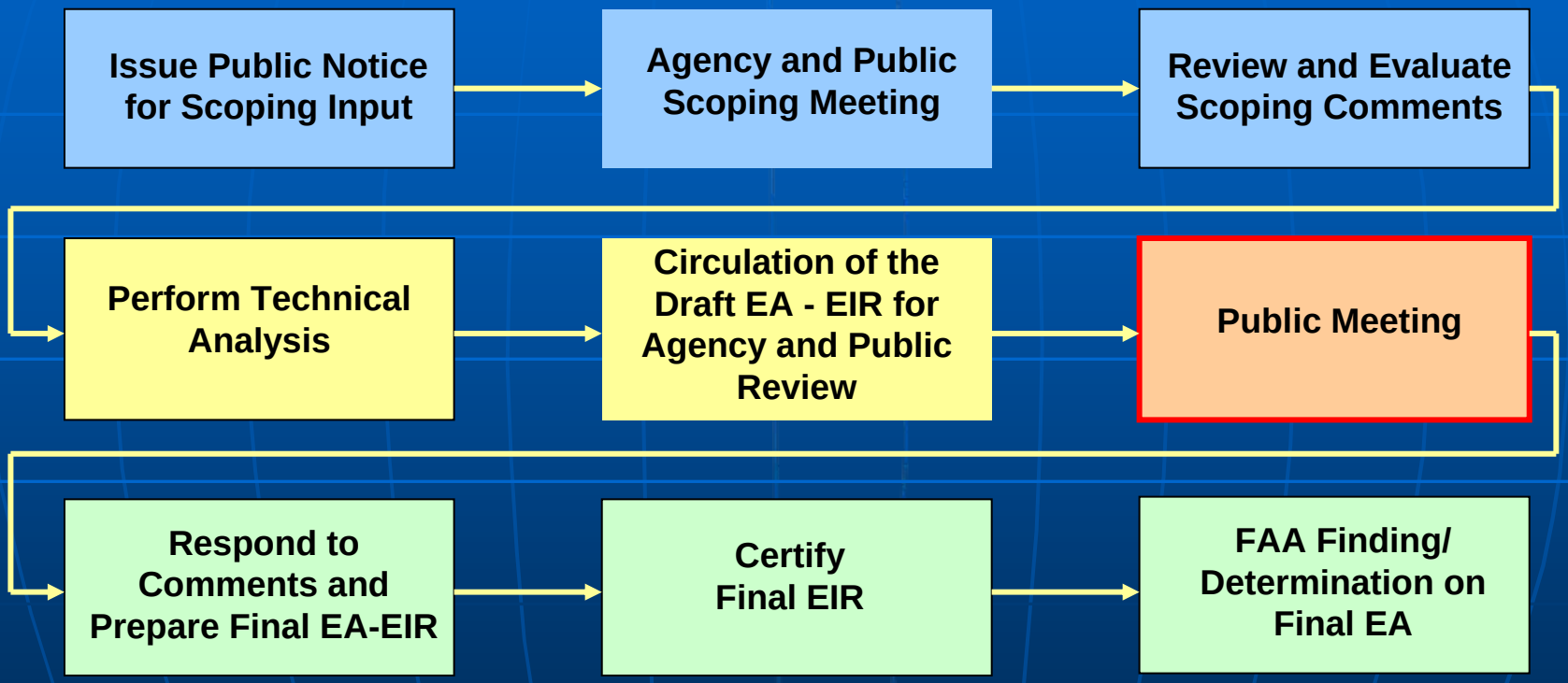
- 8 Airlines, Over 40 Flights Per Day
- Over 1.2 Million Passengers Served Annually
- $850 Million Economic Benefit To The Area
- Over 9,100 Jobs Created

MASTER PLAN

Dynamic Conceptual Planning Document that Establishes a Vision for the Airports Future

- Provides Baseline of Existing Conditions
- Reviews Aviation Demand Forecast
- Helps Determine Facility Requirements
- Identifies Alternative Opportunities for Development
- Estimates Timing for Implementation

ENVIRONMENTAL PROCESS



NEPA - PURPOSE & NEED

- FAA is focused on projects to be accomplished in the next 5 years, completed through 2014
- Accommodate existing and forecasted aircraft operations for air carrier, air cargo, air taxi, business and general aviation, flight training and military services in region
- Allow FAT to handle forecasted aircraft fleet under all weather conditions through improved facilities
- Upgrade navigational aid capabilities to allow for future, instrument approach improvements.

CEQA - OBJECTIVES

- Construct facilities and implement programs to meet existing and projected demand through 2025
- Accommodate existing and forecasted aviation operations for air carrier, air cargo, air taxi, business and general aviation, flight training, and military services in the region
- Meet FAA projected forecast from 2015-2025
- Allow FAT to handle forecasted aircraft fleet under all weather conditions through improved facilities
- Update County of Fresno, Airport Land Use Plan based on updated noise contours, safety data, and establish consistency with City of Fresno updated Airport and Environs Plan
- Update City of Fresno, Airport Environs Plan based on updated noise contours, safety data, and establish consistency with the Fresno County Airport Land Use Plan.

ALTERNATIVES CONSIDERED

- Develop Facilities at Another Existing Airport
  - Would not accommodate existing and forecasted operations for commercial, air cargo, business and general aviation, flight training, and military operations.
- Develop New Airport in Region at Different Location
  - Would require significant infrastructure; property acquisition; relocations; cost concerns; and environmental impacts.
- Use of Alternative Modes of Transportation
  - Would not accommodate existing and forecasted operations for commercial, air cargo, business and general aviation, flight training and military operations.

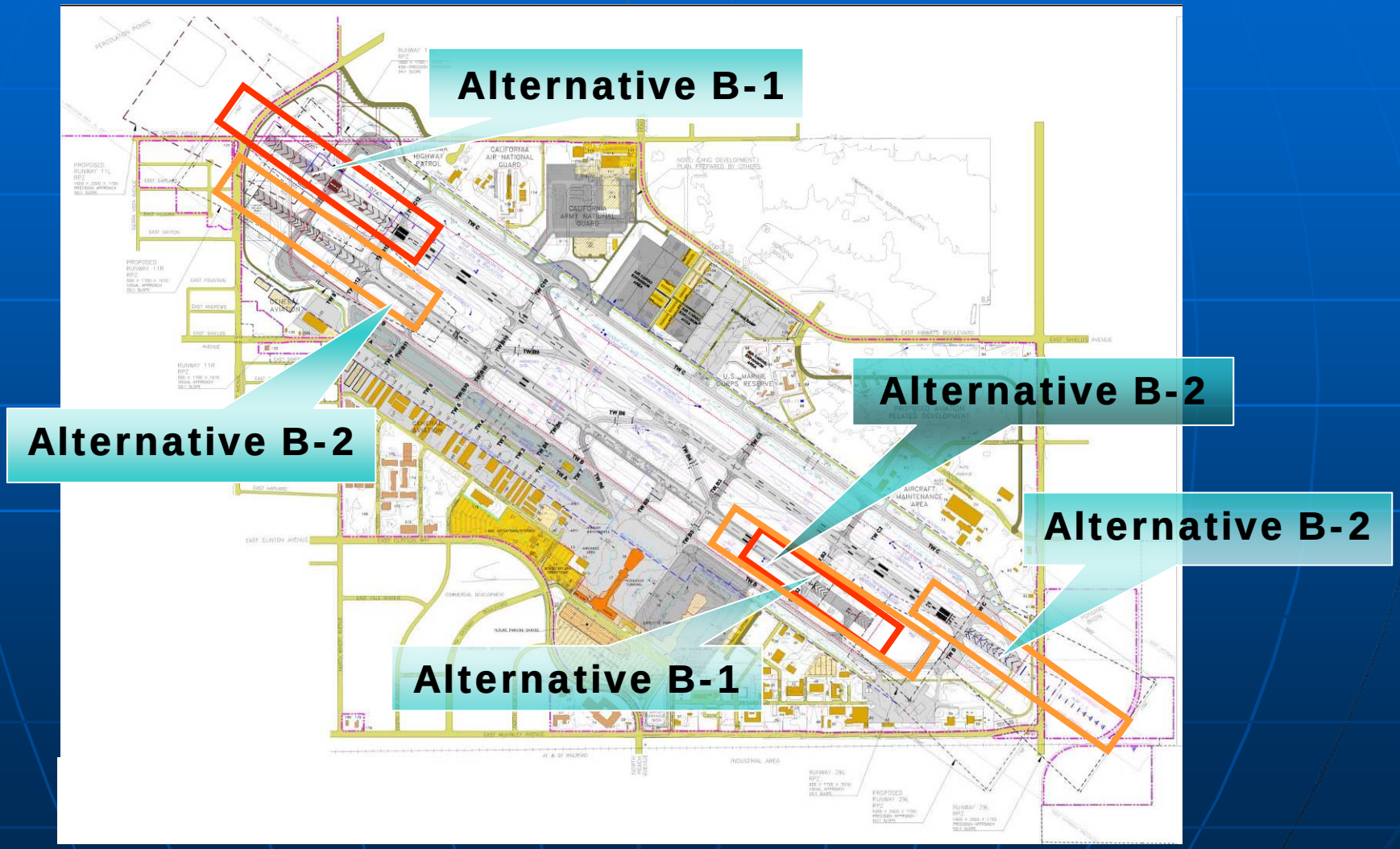
The above alternatives were not feasible due to

conflict with the objectives, purpose and need of FAT

ALTERNATIVES CONSIDERED

Proposed Project	Alternative B-1	Alternative B-2
No Extension of Primary Runway (11L/29R)	Extend Primary Runway(11L/29R) from 9,222 feet to 9,500 feet to the west	Extend Primary Runway (11L/29R) from 9,222 feet to 10,000 feet to the east
Extend length of Secondary Runway(11R/29L) from 7,206 feet to 8,000 feet to the west	Extend Secondary Runway (11R/29L) from 7,206 feet to 8,000 feet to the east	Extend Secondary Runway (11R/29L) from 7,206 feet to 8,700 feet

ALTERNATIVES CONSIDERED



ALTERNATIVES SELECTED

Primary runway extension was not necessary at this time to meet FAA aviation forecasts and would also result in additional environmental impacts

Alternatives Analyzed in Detail in EA-EIR

- No Project
- Proposed Project

2009-2014 PROPOSED PROJECTS

Airside Projects

- Extend length of secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet to the west;
- Widen secondary runway from 100 feet to 150 feet;
- Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B2, B4, C, C4, Hold Pad B, and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building;
- Relocate and rehabilitate airfield service road.

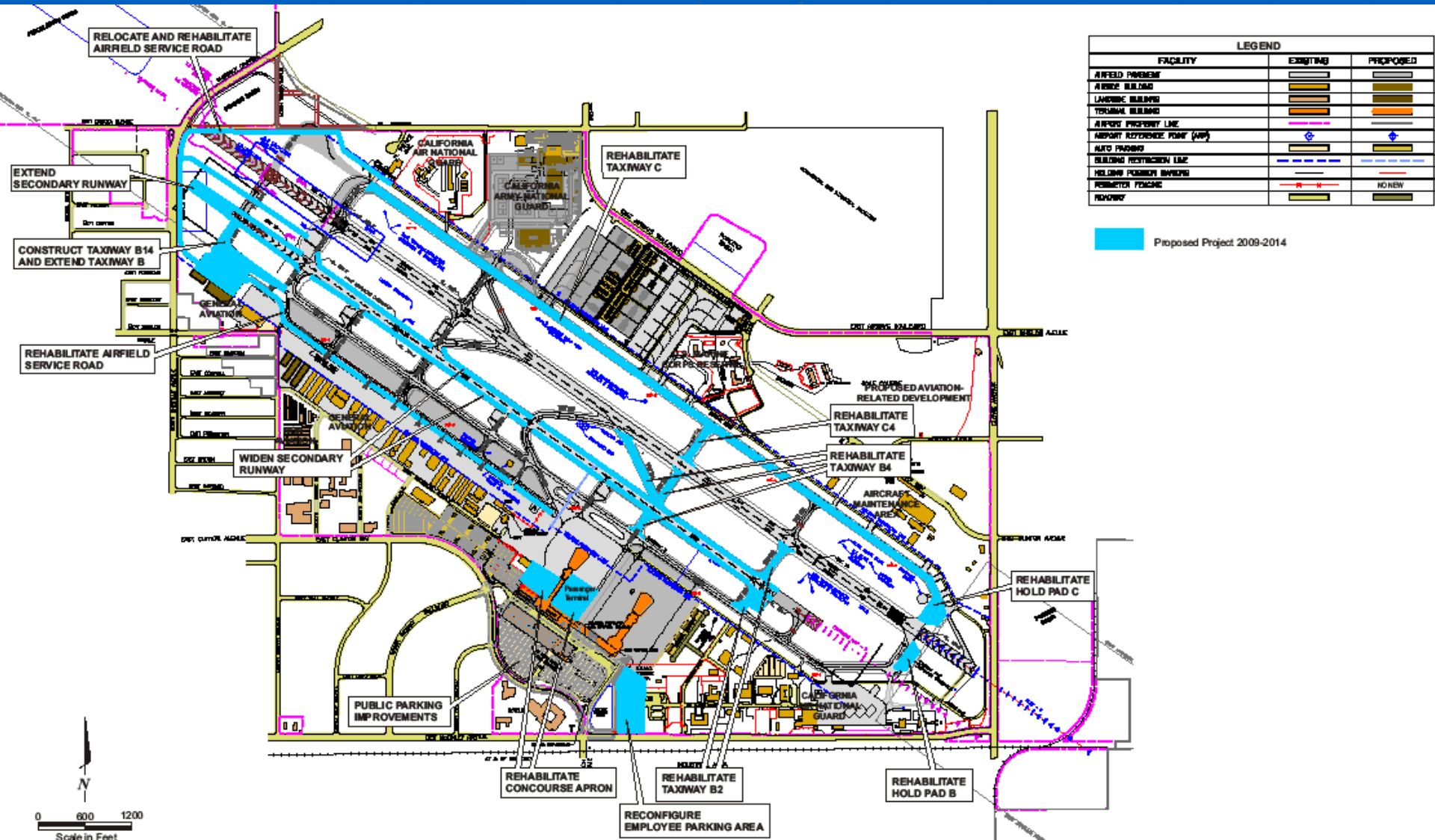
Landside Projects

- Reconfigure parking area for employees; and
- Implement public parking improvements, including a permanent structure for the parking attendant.

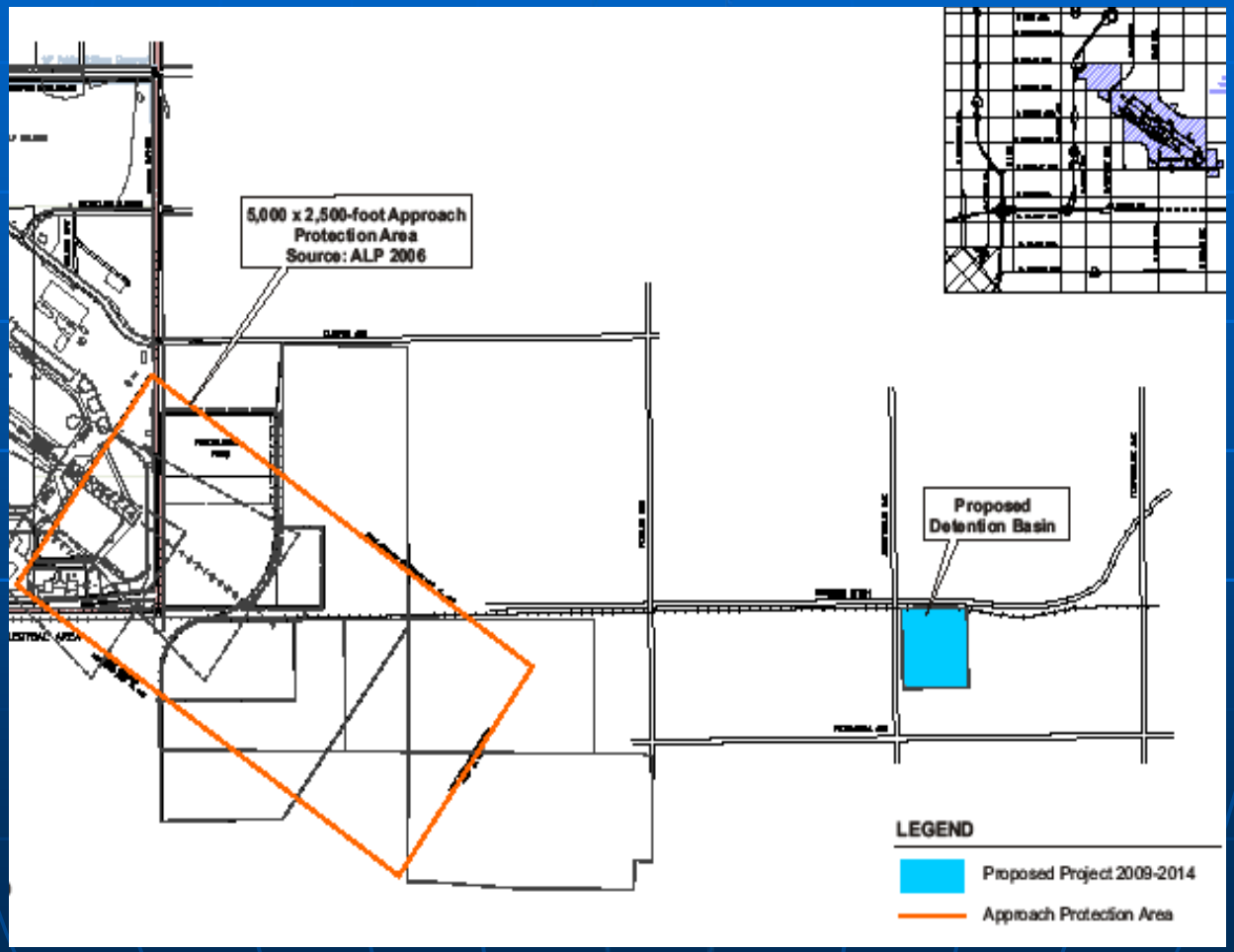
Other Projects

- Acquire land and construct a new off-site detention basin (21 acres);
- Implement storm drainage improvements, convert North Chestnut/ East Shields Basin storm water holding area to a detention basin

2009-2014 PROPOSED PROJECTS



2009-2014 PROPOSED PROJECT - OFFSITE



2015-2025 PROPOSED PROJECTS

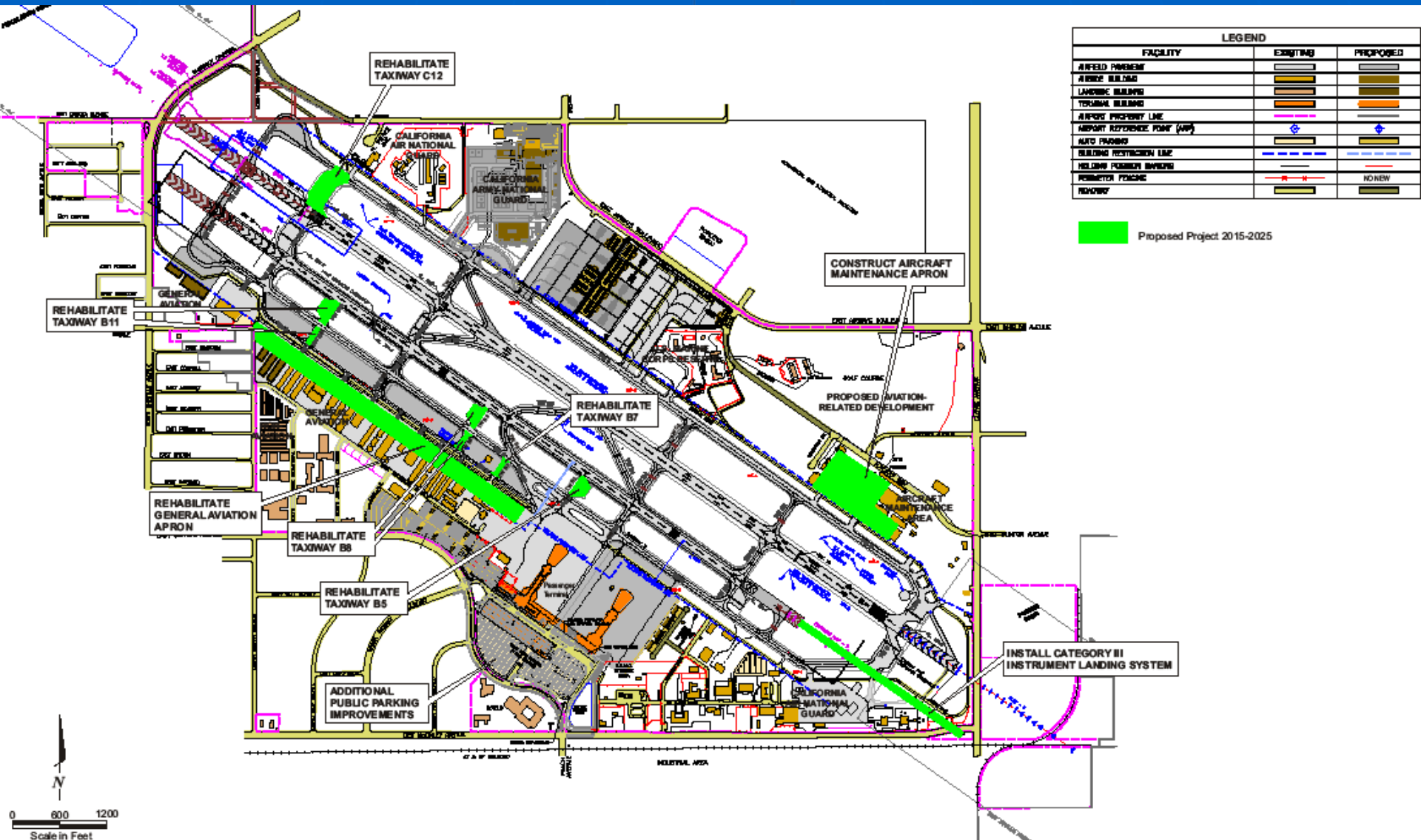
Airside Projects

- Rehabilitate Taxiways B5, B7, B8, B11, and C12;
- Rehabilitate general aviation aprons;
- Construct aircraft maintenance apron;
- Install Category III Instrument Landing System for secondary runway (Runway 11R/29L); and
- Improve the Surface Movements Guidance and Control System (SMGCS) on all taxiways.

Other Projects

- Implement storm drainage improvements, including rehabilitation/ enlargement of McKinley/Clovis pump station and infrastructure improvements associated with runway/taxiway work.

2015-2025 PROPOSED PROJECT



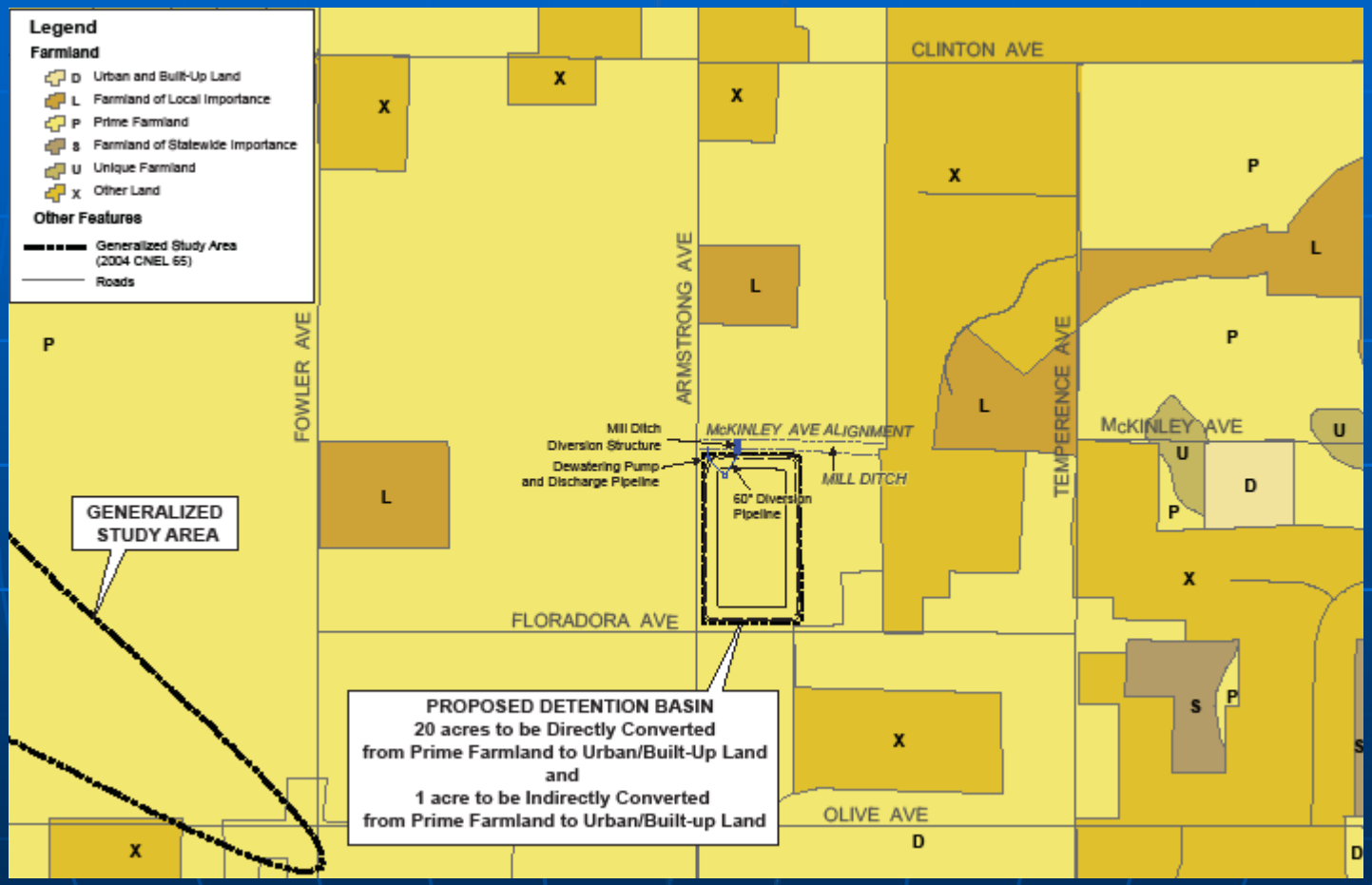
ENVIRONMENTAL TOPICS EXPLORED

- Noise
- Air Quality
- Land Use
- Wetlands
- Floodplains
- Farmlands
- Cultural Resources
- Biological Resources
- Wild and Scenic Rivers
- Surface Transportation
- Water Resources
- Visual/Aesthetics and Light Emissions
- Cumulative Impacts
- Construction Impacts
- Section 4/6(f), Recreational Resources
- Secondary/Induced Impacts
- Geology, Soils, Seismicity
- Hazardous Materials/Solid Waste
- Natural Resources/Energy Supply
- Socioeconomics/Environmental Justice

FINDINGS

- Implementation of Proposed Action would not result in significant environmental effects that could not be mitigated to a less-than-significant level with mitigation measures or best management practices, except Farmlands.
- Farmlands under CEQA were determined to be significant and unavoidable due to conversion of farmland necessary for stormwater detention basin.

FINDINGS


Legend
Farmland
D Urban and Built-Up Land
L Farmland of Local Importance
P Prime Farmland
S Farmland of Statewide Importance
U Unique Farmland
X Other Land
Other Features
Generalized Study Area (2004 CNEL 65)
Roads
CLINTON AVE
FOWLER AVE
ARMSTRONG AVE
TEMPERENCE AVE
McKINLEY AVE
McKINLEY AVE ALIGNMENT
MILL DITCH
Mill Ditch Diversion Structure
Dewatering Pump and Discharge Pipeline
60" Diversion Pipeline
FLORADORA AVE
OLIVE AVE
GENERALIZED STUDY AREA
PROPOSED DETENTION BASIN
20 acres to be Directly Converted
from Prime Farmland to Urban/Built-Up Land
and
1 acre to be Indirectly Converted
from Prime Farmland to Urban/Built-up Land

MITIGATION MEASURES

Less Than Significant Impact with Mitigation Measures

- Special- Status Species, Threatened and Endangered Species
  - Measure B-A: Conduct Preconstruction Burrowing Owl Survey
- Cultural Resources
  - Measure C-A: Develop Archaeological Protection Plan

PUBLIC COMMENTS

PUBLIC COMMENT PROCESS

- Submit speaker cards to speak
- Wait until your name is called
- Speak into the microphone and state your name and association
- Verbal comment time limited to 5 minutes
- Use comment forms for written input

COMMENTS

Comment forms are available at this meeting for written comments. You may submit written comments at this time or mail the comment form to the address listed on the form and provided below. Mailed comments should be postmarked by Dec 7, 2009, the close of Public Comment period.

Thank you for your comments. All comments will be reviewed and considered in preparation of the Final EA-EIR.

Kevin Meikle, Airports Planning Manager
City of Fresno – Airports
4995 East Clinton Way
Fresno, CA 93727-1525
Kevin.Meikle@fresno.gov

THANK YOU FOR YOUR PARTICIPATION

APPENDIX A3
DRAFT EA/EIR COMMENTS AND RESPONSES

INTRODUCTION

This Comments and Responses section has been prepared to respond to comments received on the Improvements at Fresno Yosemite International Airport (FAT or Airport) Environmental Assessment (EA)/ Environmental Impact Report (EIR) prepared by the City of Fresno (City) in coordination with the Federal Aviation Administration (FAA). The Draft EA/EIR was released for public review on October 22, 2009 (State Clearinghouse No. 2005061150). The City of Fresno conducted a Public Information Meeting on November 18, 2009, at the Airport Holiday Inn, 5090 East Clinton Way, in Fresno, California at 5:30 PM. The 45-day public review period for the document ended on December 7, 2009.

This Comments and Responses section incorporates comments from all commenters that were provided via mail, fax, or email. No comments on the EA/EIR were received at the Public Information Meeting. Questions were asked during the Public Information Meeting regarding noise and aircraft operations at the Airport but were unrelated to the EA/EIR. Table A-1 contains an index of all parties who submitted comments on the Draft EA/EIR. This document uses a code to identify the commenter letter and additional codes per topic for each specific comment within each letter, which is indicated by brackets.

The first letter in the identifier code represents the period or "event code" when the comment was received:

D = Comment received during the Draft EA/EIR review period

The second character represents the "affiliation code" that places the commenting party into one of three categories:

F = Comment from Federal agency
S = Comment from State agency
L = Comment from Local agency

The last four characters represent the third field, which identifies the specific comment numerically. For example, the identified code "DL0003," describes the comment submittal as being the 3rd letter or comment form received on the Draft EA/EIR from a local agency.

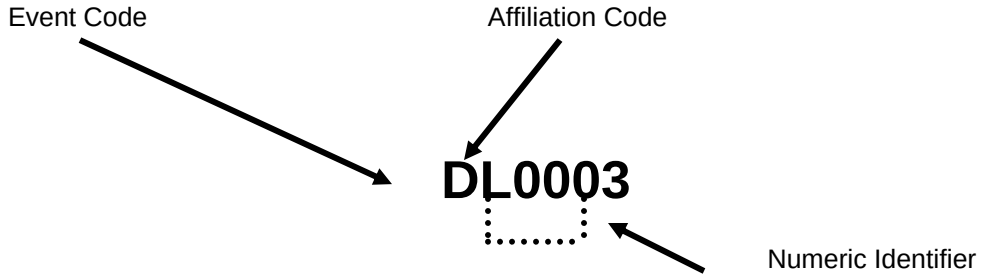


Table A-1 lists the agencies, organizations, and individuals who submitted written comments on the Draft EA/EIR.

Table A-1 Written Comments					
Affiliation Code		**Name**	**Organization**	**Media**	**Comment Issue Date**
DF0001	Federal	Erin Hanlon	U.S. Army Corps of Engineers	E-mail	10/29/09
DF0002	Federal	Susan Jones	U.S. Fish and Wildlife Service	Letter	11/09/09
DF0003	Federal	Connell Dunning	U.S. EPA, Region IX	Fax	12/07/09
DS0001	State	Joanne Striebich	California Department of Transportation	Letter	11/09/09
DS0002	State	Sandy Hesnard	California Department of Transportation – Division of Aeronautics	Letter	11/24/09
DS0003	State	Scott Morgan	Governor's Office of Planning and Research State Clearinghouse and Planning Unit	Letter	12/10/09
DL0001	Local	Neda Shakeri	Fresno Metropolitan Flood Control District	Letter	11/12/09
DL0002	Local	Dwight Kroll	City of Clovis	Letter	12/07/09
DL0003	Local	William Strectch	Fresno Irrigation District	Letter	12/09/09

COMMENTS AND RESPONSES

This comments and responses chapter is organized by topic relevant to chapters of the Draft EA/EIR. Each comment letter was reviewed and the comments were identified. Brackets were placed around the comment and identified by topic using the codes listed below. The bracketed comment was repeated and is listed under Comment and is followed by the reply under Response. A copy of the original comment letters are provided after the Comment and Responses Chapter of this Appendix.

Topic Codes Assigned to Each Comment

GS – General Support
A – Alternatives
B – Fish, Wildlife, and Plants
P – Permitting
W – Wetlands
N – Noise
AQ – Air Quality
E – Energy Supply and Natural Resources
CI – Cumulative Impacts
LU – Compatible Land Use and Community Services
T – Surface Transportation and Traffic
M – Miscellaneous
WQ – Water Quality
CN – CEQA/NEPA Process

GS – General Support

GS-1 COMMENT – CONNELL DUNNING (U.S. EPA)

EPA commends City of Fresno for integrating an on-site solar facility for generating power for airport facility operations.

GS-1 RESPONSE

Comment noted.

GS-1 LETTER CODE

DF0003

A – ALTERNATIVES

A-1 COMMENT – ERIN HANLON (U.S. ARMY CORPS OF ENGINEERS)

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States.

A-1 RESPONSE

As discussed in Section 4.4.9 and 5.13 of the Draft EA/EIR, there are no wetlands or other waters of the United States (U.S.) located in the project area.

Fresno and FAA continued coordination with Erin Hanlon of the U.S. Army Corps of Engineers (USACE) regarding potential wetland impacts in the project area. On April 20, 2010, a memo was submitted to USACE regarding seasonal ponding at the airport. The memo was prepared as a result of a phone conversation between Fresno, FAA, URS, and USACE on April 14, 2010. The memo identified that the proposed Airport Improvements Project, as identified in the 2009 Draft EA/EIR, is not anticipated to impact any seasonally ponded areas at FAT. Additionally, the master drainage plan for the airport was submitted for Erin Hanlon's review via email on April 27, 2010, and an additional call was conducted. Based on this call, Fresno and FAA agreed to add the following best management practice (BMP) to the project:

> Protective barrier construction fencing would be placed around the seasonally inundated/ ponded areas to serve as a no-disturbance buffer during the rehabilitation of the north Service Road (shown in Figure 5.12-1) for the duration of project construction.

On May 26, 2010, Erin Hanlon concurred that the project is compliant with the Clean Waters Act and that no further permitting or coordination would be necessary. The memo, titled "Seasonal Ponded Swales at Fresno Yosemite International Airport," and e-mail correspondence with Erin Hanlon is included in Appendix H of the Final EA/EIR.

A-1 LETTER CODE

DF0001

B – Fish, Wildlife, and Plants

B-1 COMMENT – SUSAN JONES (U.S. FISH AND WILDLIFE SERVICE)

An updated CNDDB records search for the DSA and GSA (Generalized Study Area) as this information is outdated after six months.

B-1 RESPONSE

An updated California Department of Fish and Game California Natural Diversity Database (CNDDB) records search was conducted on April 4, 2010. The following table lists the species identified in the records search.

Special-Status Species Potentially Occurring in the Vicinity (CNDDB, 20010)[1]

Scientific Name COMMON NAME	Status[2] (Federal/State)	CNPS[3]	Other Status[4]	Preferred Habitat	Potential to occur in the Project Area
Mammals					
Dipodomys nitratoides exillis FRESNO KANGAROO RAT	FE/SE	N/A	-	Alkali sink and open grassland habitats in western Fresno county. Uses bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds above seasonal flood level for burrows	Not likely to occur; no habitat present
Vulpes macrotis mutica SAN JOAQUIN KIT FOX	FE/ST	N/A	-	Annual grassland or grassy open stages with scattered shrubby vegetation, need loose-textured sandy soils for burrowing, and suitable prey base	Not likely to occur; extirpated from project area
Taxidea taxus AMERICAN BADGER	None	N/A	SSC	Grasslands, prairies, deserts	Not likely to occur; no habitat present
Eumops perotis californicus WESTERN MASTIFF BAT	None	N/A	SSC	Open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, grasslands and urban areas	Not likely to occur; no habitat present
Euderma maculatum SPOTTED BAT	None	N/A	SSC	Arid deserts, grasslands and mixed conifer forest	Not likely to occur; no habitat present
Antrozous pallidus PALLID BAT	None	N/A	SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting	Not likely to occur; no habitat present
Birds					
Agelaius tricolor (nesting colony) TRICOLORED BLACKBIRD	None	N/A	SSC	Nests next to open water where there is extensive emergent vegetation, blackberry or wild rose bushes; frequently forages in grainfields	Not likely to occur; no habitat present
Athene cunicularia hypugea WESTERN BURROWING OWL	None	N/A	SSC	Nests and winters in grassland and sparse shrubland habitats throughout California; uses abandoned burrows of burrowing mammals for shelter and nest sites	Known to occur in recent years, some potential to occur in the project area
Coccyzus americanus occidentalis WESTERN YELLOW-BILLED CUCKOO	FC/SE	N/A	-	Dense willow and cottonwood stands in river floodplains	Not likely to occur; no habitat present

Scientific Name COMMON NAME	Status[2] (Federal/State)	CNPS[3]	Other Status[4]	Preferred Habitat	Potential to occur in the Project Area
Amphibians and Reptiles					
Actinemys (=Clemmys) marmorata WESTERN POND TURTLE	None	N/A	SSC/ Protected	Ponds, marshes, rivers, streams, irrigation ditches, need basking sites such as partially submerged logs or rocks, and suitable upland habit (sandy banks or grassy open fields) for egg laying	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Ambystoma californiense CALIFORNIA TIGER SALAMANDER	FT/-	N/A	SSC	Annual grasslands and grassy understory of valley-foothill hardwood habitats, need underground refuges during dry season, need vernal pools or other seasonal water sources for breeding	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Spea hammondii WESTERN SPADEFOOT	None	N/A	SSC	Grassland and valley-foothill hardwood woodlands, vernal pools or seasonal wetlands are essential for egg laying	Not likely to occur; no habitat present
Fish					
Mylopharodon conocephalus HARDHEAD	None	N/A	SSC	Sacramento-San Joaquin river system and the Russian River system	Not likely to occur; no habitat present
Invertebrates					
Branchinecta lynchi VERNAL POOL FAIRY SHRIMP	FT/-	N/A	-	Vernal pools, small, clearwater sandstone depression pools and grassed swale, earth slump, or basalt-flow depression pools	Not likely to occur; no habitat present
Desmocerus californicus dimorphus VALLEY ELDERBERRY LONGHORN BEETLE	FT/-	N/A	-	Elderberry shrubs	Not likely to occur; no habitat present
Plants					
Orcuttia pilosa HAIRY ORCUTT GRASS	FE/SE	1B.1	-	Vernal pools, endemic to the Sacramento Valley	Not likely to occur; no habitat present
Orcuttia inaequalis SAN JOAQUIN VALLEY ORCUTT GRASS	FT/SE	1B.1	-	Vernal pools	Not likely to occur; no habitat present
Castilleja campestris *ssp.* succulenta SUCCULENT OWL'S CLOVER	FT/SE	1B.2	-	Vernal pools and moist places, often in acidic soils, in valley and foothill grasslands	Not likely to occur; no habitat present
Pseudobahia bahiifolia HARTWEG'S GOLDEN SUNBURST	FE/SE	1B.1	-	Cismontane woodlands and valley foothill grasslands with clay soils	Not likely to occur; no habitat present
Pseudobahia peirsonii SAN JOAQUIN ADOBE SUNBURST	FT/SE	1B.1	-	Cismontane woodlands and valley foothill grasslands with adobe soils.	Not likely to occur; no habitat present

Scientific Name COMMON NAME	Status[2] (Federal/State)	CNPS[3]	Other Status[4]	Preferred Habitat	Potential to occur in the Project Area
Eryngium spinosepalum SPINY-SEPALED BUTTON-CELERY	None	1B.2	-	Valley and foothill grasslands, vernal pools	Not likely to occur; no habitat present
Caulanthus californicus CALIFORNIA JEWEL-FLOWER	FE/SE	1B.1	-	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland, sandy soils	Not likely to occur; no habitat present
Tuctoria greenei GREENE'S TUCTORIA	FE/SR	1B.1	-	Vernal pools	Not likely to occur; no habitat present
Leptosiphon serrulatus MADERA LEPTOSIPHON	None	1B.2	-	Cismontane woodland, lower montane coniferous forest	Not likely to occur; no habitat present
Sagittaria sanfordii SANFORD'S ARROWHEAD	None	1B.2	-	Shallow freshwater marshes and swamps	Not likely to occur; no habitat present
Tropidocarpum capparideum CAPER-FRUITED TROPIDOCARPUM	None	1B.1	-	Valley and foothill grassland	Not likely to occur; no habitat present
Imperata brevifolia CALIFORNIA SATINTAIL	None	2.1	-	Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps often alkali soils and mesic riparian scrub	Not likely to occur; no habitat present
Downingia pusilla DWARF DOWNINGIA	None	2.2	-	Valley and foothill grasslands, vernal pools	Not likely to occur; no habitat present

Note:
[1] Table only includes those species with federal, state, or other list status as identified in the CNDDB.
[2] Federal and State Status
FE Federal Endangered
FT Federal Threatened
FC Federal Candidate
SE State Endangered
ST State Threatened
SR State Rare
[3] California Native Plant Society (CNPS)
1A Plant species that are presumed extinct in California
1B Plant species that are rare, threatened, or endangered in California and elsewhere
2 Plant species that are rare, threatened, or endangered in California but more common elsewhere
3 Plant species about which we need more information (a review list)
4 Plant species of limited distribution (a watch list).
Threat Ranks
0.1-Seriously threatened in California (high degree/immediacy of threat)
0.2-Fairly threatened in California (moderate degree/immediacy of threat)
0.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)

[4] Other Status
SSC – California Department of Fish and Game Species of Special Concern
Protected and Fully Protected – Species which cannot be taken or possessed without a permit from the Fish and Game Commission and/or Department of Fish and Game

In addition to those species listed in the 2006 CNDDB search, pallid bat, spotted bat, western mastiff bat and California satintail,—all California Department of Fish and Game Species of Special Concern—have been added to the table. California jewel-flower has been upgraded from having no state status to rare, and Greene's Tuctoria from no federal status to endangered.

B-1 LETTER CODE

DF0002

B-2 COMMENT – SUSAN JONES (U.S. FISH AND WILDLIFE SERVICE)

A current species reconnaissance survey since the January 2006 survey was four years ago. The survey should ascertain if any federally-listed species and/or their habitat is within the proposed GSA. The survey should also include an assessment of the proposed detention basin location for kit fox prey and potential use of that site.

B-2 RESPONSE

FAT is an actively maintained airport located on a very developed site with land that is disturbed on a regular basis by regular airport functions and operations. Most of the Airport contains facilities including pavement in the form of parking areas for vehicles and aircraft, airfield, taxiways and storage areas for equipment. These facilities along with structures and NAVAIDS have been altered over the past 60 or more years in order to accommodate operations at FAT.

As stated in Section 4.4.7, the land surrounding FAT has been heavily modified by urban development, including commercial development that has changed in recent years. Native plant communities are not the dominant land cover in the GSA or Detailed Study Area (DSA) due to the urbanization of the Fresno-Clovis area, which has been ongoing since the 1940s. All of the vegetation communities in the GSA are disturbed and provide little habitat for wildlife. Due to ongoing maintenance and application of herbicides and rodenticides, the GSA provides roosting habitat for wildlife, but very little foraging or nesting opportunities.

On March 31, 2010, a field survey was performed to identify any potential new sightings of special-status species in the project area and vicinity. The survey also assessed the potential detention basin site to determine the potential for occurrence of San Joaquin kit fox (*Vulpes macrotis mutica*), including the presence of prey and potential for San Joaquin kit fox use.

A Supplemental Biological Investigation Report was submitted to Susan Jones of the U.S. Fish and Wildlife Service (USFWS) with the findings of the March 31, 2010, field survey and an updated CNDDB (see Response B-1 for updated table). The report found that findings stated in the October 2009 Draft EA/EIR are still valid regarding biological resources. The memo concluded that there are no special-status, threatened, or endangered species that would be significantly impacted by the proposed project.

On July 8, 2010, FAA received a letter from USFWS concurring with the information presented in the report, and issuing a statement that no further coordination under the Endangered Species Act is required.

The Supplemental Biological Investigation Report and USFWS' letter of concurrence are included in Appendix H of the Final EA/EIR.

B-2 LETTER CODE

DF0002

P – Permitting

P -1 COMMENT – SANDY HESNARD (CALIFORNIA DEPARTMENT OF TRANSPORTATION – DIVISION OF AERONAUTICS)

The proposed runway extension will require an amended State airport permit in accordance with Public Utilities Code (PUC) Section 21664.5(b)(3).

P -1 RESPONSE

Comment noted. FAT will obtain the appropriate permits for the project.

P -1 LETTER CODE

DS0002

P -2 COMMENT – SANDY HESNARD (CALIFORNIA DEPARTMENT OF TRANSPORTATION – DIVISION OF AERONAUTICS)

The applicant should also be advised to contact the Division's Aviation Safety Officer for Fresno County, Don Haug, at (916) 654-5174, to request an Amended State Airport Permit-Application package.

P -2 RESPONSE

Comment noted.

P -2 LETTER CODE

DS0002

W – Wetlands

W-1 COMMENT – ERIN HANLON (U.S. ARMY CORPS OF ENGINEERS)

You have not provided us with adequate information for determining whether there are any waters of the United States on the project site. To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetland Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification.

W-1 RESPONSE

See Response A-1.

W-1 LETTER CODE

DF0001

W-2 COMMENT – ERIN HANLON (U.S. ARMY CORPS OF ENGINEERS)

Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States.

W-2 RESPONSE

See Responses A-1 and W-1.

The Proposed Project would not impound, divert, drain, control, or otherwise modify the water of any stream or other body of water, as there are no streams or bodies of water within the DSA, nor would it significantly alter the existing drainage patterns within the GSA.

As discussed in Section 5.8, a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented; and compliance with local ordinances for all grading, drainage, and construction and preparation and implementation of a grading/erosion control plan would occur. Additionally, industry standard BMPs would be implemented during construction to minimize discharge of sediments off site; including the use of silt fences, sand bags, fiber rolls, and stabilized construction entrances and a BMP for fencing during construction of the ponded swales is included as part of the Proposed Action in the Draft EA/EIR. Once construction is complete, the site would be covered with asphalt or re-seeded, so that sediment production would be negligible.

W-2 LETTER CODE

DF0001

W-3 COMMENT – ERIN HANLON (U.S. ARMY CORPS OF ENGINEERS)

In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the U.S., mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

W-3 RESPONSE

See Responses A-1, W-1, and W-2. There are no waters that would be filled; therefore mitigation is not required.

W-3 LETTER CODE

DF0001

N – Noise

N-1 COMMENT – DWIGHT KROLL (CITY OF CLOVIS)

The EA/EIR's analysis of this impact was thorough and its conclusion that the improvements would not result in additional significant aircraft noise impacts beyond those already analyzed in the 2006 Master Plan EA/EIR is satisfactory.

N- RESPONSE

Comment noted.

N-1 LETTER CODE

DL0002

AQ – Air Quality

AQ-1 COMMENT – CONNELL DUNNING (EPA)

EPA's previously provided comments included several recommendations related to project assumptions, National Ambient Air Quality Standards, and hazardous air pollutant emissions. While our Scoping comments were included in the Agency Outreach section of the Draft EA, it appears that the extensive comments that we provided regarding the air quality methodology were not referenced or considered. We have provided the July 27 comment letter, in its entirety, as an attachment and re-submit those air quality related comments for your consideration at this time.

AQ-1 RESPONSE

In an inadvertent oversight, the comments provided by U.S. EPA in the July 27, 2006, letter were not included in the Draft EA/EIR. However, many of the comments and requests were addressed in the Draft EA/EIR. The July 27, 2006, U.S. EPA scoping comments inadvertently left out of the draft EA/EIR are addressed individually in this response to comments section.

AQ-1 LETTER CODE

DF0003

AQ-2 COMMENT – CONNELL DUNNING (EPA)

If a general conformity determination for ozone, PM10 or PM2.5 is required, the Draft EA/EIR should include the determination with related mitigation commitments.

AQ-2 RESPONSE

As discussed in Section 5.6 and Appendix E of the Draft EA/EIR, no general conformity determination for ozone, particulate matter less than 10 microns in diameter (PM_{10}), or particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) is required. Section 5.6 identifies BMPs that would be incorporated into construction activities.

AQ-2 LETTER CODE

DF0003

AQ-3 COMMENT – CONNELL DUNNING (EPA)

The methods used to estimate emissions should reflect the latest available data and be consistent with the methods used for the State Implementation Plan (SIP) and Regional Transportation Plan (RTP) conformity determinations. In addition, FAA should work with the San Joaquin Valley Air Pollution Control District and the Fresno Council of Governments (FCOG) to ensure that applicable elements of the proposed project are consistent with future revisions of the RTP. The most current EPA-approved modal should be used to estimate mobile-source emissions, including re-entrained PM10 emissions. All

methods and assumptions for analyses should be presented with pertinent air quality analyses and conclusions.

AQ-3 RESPONSE

As discussed in Section 5.6 and Appendix E of the Draft EA/EIR, construction-related emissions inventories were prepared for each year in which construction activities were expected to occur (i.e., 2007 through 2012). The operational emissions inventories were prepared for the year 2004 (existing conditions) and two future years, the interim year 2012 and the horizon year of 2025. The Proposed Project is expected to be completed within the next 5 years. Also, note that the operational emissions analysis only includes an evaluation of aircraft operations (see Appendix E for a detailed explanation). This approach is consistent with FAA guidelines, which call for emissions inventory results coincident with (1) the year(s) of maximum project-related emissions, (2) the attainment year or furthest forecast year contained in the SIP, and (3) the SIP interim budget years.

AQ-3 LETTER CODE

DF0003

AQ-4 COMMENT – CONNELL DUNNING (EPA)

If direct or indirect emissions of PM2.5, or any precursor that has been identified as a significant contributor to nonattainment for a specific PM.2.5 nonattainment area, exceed the 100 tpy threshold, a general conformity determination is required.

AQ-4 RESPONSE

As shown in Table 5.6-3 and discussed in Section 5.6 and Appendix E of the Draft EA/EIR, the project shall result in minimal increases in emissions well below the 100 tpy threshold for a general conformity determination.

AQ-4 LETTER CODE

DF0003

AQ-5 COMMENT – CONNELL DUNNING (EPA)

EPA recommends that the EA/EIR include an analysis of the potential emissions, including particulate matter hot spot analyses, from the construction and operation of the multiple parking structures planned.

AQ-5 RESPONSE

The parking structure was removed from the list of Improvements Projects along with several other projects as they are no longer being considered for implementation and, therefore are not analyzed in the EA/EIR.

AQ-5 LETTER CODE

DF0003

AQ-6 COMMENT – CONNELL DUNNING (EPA)

In addition, EPA recommends that FAA and City of Fresno consider incorporating consolidated zero-emissions or alternative fuel buses for transporting passengers between the airport and the rental car facility.

AQ-6 RESPONSE

As discussed in Section 5.18, the consolidated car rental facility is complete and is now located adjacent to the terminal, eliminating the need for shuttle buses, and reducing CO_2 emissions.

AQ-6 LETTER CODE

DF0003

AQ-7 COMMENT – CONNELL DUNNING (EPA)

FAA and City of Fresno should work with the FCOG and the San Joaquin Valley Air Pollution Control District to determine what operational emissions will result from the landside improvements if those emissions are accounted for in the San Joaquin Valley's SIP.

AQ-7 RESPONSE

See Response AQ-3.

AQ-7 LETTER CODE

DF0003

AQ-8 COMMENT – CONNELL DUNNING (EPA)

Discuss the potential HAPs related to construction activity and include an assessment of HAPs from construction-related activities, incorporate mitigation measures to reduce HAPS exposure from construction.

AQ-8 RESPONSE

HAPs are evaluated in Section 5.6 and Appendix E of the Draft EA/EIR. BMPs will be incorporated into the project to reduce potential impacts during construction and are identified in Section 5.6 and Appendix E of the EA/EIR.

AQ-8 LETTER CODE

DF0003

AQ-9 COMMENT – CONNELL DUNNING (EPA)

Correct Section 5.0 of the Protocol to reflect that the area is a PM10 and PM2.5 nonattainment area. Any conformity assessment will also need to address the pollutants and precursors associated with PM10 and PM2.5 nonattainment in the San Joaquin Valley.

AQ-9 RESPONSE

See response AQ-4.

Section 5.6 and Appendix E of the EA/EIR identify the project area as a PM_{10} and $PM_{2.5}$ nonattainment area.

AQ-9 LETTER CODE

DF0003

AQ-10 COMMENT – CONNELL DUNNING (EPA)

EPA is concerned with the current proposal to evaluate mitigation measures only "to the extent necessary" as stated on page 3 of the Protocol. EPA recommends that FAA and City of Fresno incorporate all feasible pollution prevention and mitigation measures to reduce environmental impacts of the proposed project, as recommended by CEQ.

AQ-10 RESPONSE

FAA and the City of Fresno have incorporated pollution prevention and BMPs to reduce the potential for air quality environmental impacts, see Section 5.6.

AQ-10 LETTER CODE

DF0003

AQ-11 COMMENT – CONNELL DUNNING (EPA)

EPA recommends that FAA and City of Fresno use this opportunity to assess the air quality benefits that could result from the incorporation of mitigation measures to reduce impacts to air quality from these sources. On September 30, 2004, EPA's Office of Air Quality Planning and Standards issued guidance for a new program to reduce emissions from airport vehicles and infrastructure. Under the program the FAA will approve funding of projects to voluntarily reduce emissions at airports. In turn, the airport will receive emission reduction credits that can be used for demonstrating general conformity or as new source review offsets. The Final EA should identify measures utilizing EPA's "Guidance on Airport Emissions Reduction Credits for Early Measures through Voluntary Airport Low Emissions Programs" (accessible at www.epa.gov/ttn/oarpg/genconformity.html).

AQ-11 RESPONSE

Comment Noted.

The Voluntary Airport Low Emissions Program is a voluntary program. The City of Fresno periodically evaluates applying for a project under the Voluntary Airport Low Emission program, but such a project is not required to mitigate for air quality impacts resulting from the Proposed Project.

FAT is actively involved in sustainable efforts and participates in the City's Green Team. In 2004, the Planning and Development Department began to develop green policies, including the start of the Fresno Green Building program. Fresno Green Team was formed in early 2007 with the mission to develop and implement strategies designed to green Fresno. A document entitled, Strategy for Achieving Sustainability documented strategies and policies, dated April 23, 2007. The green concepts were integrated with the 2025 General Plan. Some of the goals and achievements included - Fresno Green Building Incentive Program, Solar Energy System Rebate and Loan Program, Weatherization and Energy Efficiency Program, Traffic Intelligent Transportation Systems (ITS) synchronization along Herndon, Purchase of Compressed Natural Gas (CNG)/Liquefied Natural Gas (LNG)/Hybrid vehicles, 665 kilowatt (KW+) Solar power system at Fresno Municipal Service Center, 2 megawatt (MW) Solar power system at FAT. Several of these policies include concepts that will improve air quality by harnessing solar and other types of renewable energy, which is already in place for FAT. FAT will continue to strive to meet the City goals and will consider EPA's recommendations.

AQ-11 LETTER CODE

DF0003

AQ-12 COMMENT – CONNELL DUNNING (EPA)

Expand electric and alternative fuel infrastructure facilities for ground support equipment and for ground access vehicles.

AQ-12 RESPONSE

See Response AQ-11.

As discussed in Section 5.8, currently the passenger loading bridge uses electrically powered ground power and pre-conditioned air units for parked aircraft, thereby reducing the use of fossil fueled aircraft auxiliary power units and ground power units. Pushback tugs for aircraft movement from the terminal are used whenever possible to avoid aircraft engines start up until powered out to the taxiways. The Airport's onsite solar facility generates 4.2 MW per hour of electricity and cool roofs are used at the terminal facility. FAT will continue to strive for replacement of more efficient equipment and facilities. All ground service equipment (GSE) is owned by the individual airlines. The airlines determine equipment usage based on costs and the ability to continue to operate and remain a viable commercial business. FAT does encourage airlines to consider their policies; however, they can not force them to change equipment and vehicles.

AQ-12 LETTER CODE

DF0003

AQ-13 COMMENT – CONNELL DUNNING (EPA)

Adopt and encourage incentive programs, including pricing structures, to reduce commute trips for airport and tenant employees.

AQ-13 RESPONSE

Comment noted.

Currently there are some City-wide recommendations but no mandates to reduce commute trips to the Airport. The Fresno Area Express (FAX) transit system offers public transit to the Airport. FAX routes 26 and 39 access the Airport and offer services seven days a week. See Response AQ-11.

AQ-13 LETTER CODE

DF0003

AQ-14 COMMENT – CONNELL DUNNING (EPA)

Establish specific, quantifiable goals to reduce emissions from ground support equipment and auxiliary power units (APU) which, together with aircraft, constitute the largest source of on-airport emissions.

AQ-14 RESPONSE

See Response AQ-11 and AQ-12.

AQ-14 LETTER CODE

DF0003

AQ-15 COMMENT – CONNELL DUNNING (EPA)

Establish incentive programs to motivate airlines to minimize APU use, thus reducing fuel use and emissions. Provide specific incentives to airlines to replace older, more polluting APUs with newer, more fuel efficient APUs with electronic engine control units and integration of the APU and aircraft control systems.

AQ-15 RESPONSE

See Response AQ-11 and AQ-12.

AQ-15 LETTER CODE

DF0003

AQ-16 COMMENT – CONNELL DUNNING (EPA)

Identify specific, quantifiable targets to reduce emissions for any strategy that is adopted by FAA.

AQ-16 RESPONSE

See Response AQ-11 and AQ-12. Additionally, the projects will not result in emissions above the 100 tpy threshold.

AQ-16 LETTER CODE

DF0003

AQ-17 COMMENT – CONNELL DUNNING (EPA)

Identify alternative fuel projects to reduce emissions; from on-airport and off-airport sources and other methods.

AQ-17 RESPONSE

See Response AQ-11 and AQ-12.

AQ-17 LETTER CODE

DF0003

AQ-18 COMMENT – CONNELL DUNNING (EPA)

Use particle traps and other appropriate controls to reduce emissions of DPM and other air pollutants.

AQ-18 RESPONSE

BMPs were developed considering EPA suggestions. Additionally, see Responses AQ-6 and AQ-12.

AQ-18 LETTER CODE

DF0003

AQ-19 COMMENT – CONNELL DUNNING (EPA)

Visible emissions from all heavy duty off-road diesel equipment should not exceed 20 percent opacity for more than three minutes in any hour of operation.

AQ-19 RESPONSE

Comment noted. As stated in Section 5.6.4.2, construction activities shall comply with Tables 6-2 and 6-3 of the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Guide for Assessing and Mitigating Air Quality Impacts. One of the measures contained in Table 6-3 of the guide is that projects must stay within a 20 percent opacity limitation.

AQ-19 LETTER CODE

DF0003

AQ-20 COMMENT – CONNELL DUNNING (EPA)

Minimize construction-related trips of workers and equipment, including trucks and heavy equipment and establish an activity schedule designed to minimize traffic congestion around the construction site.

AQ-20 RESPONSE

Comment noted. Most of the construction will occur on the airfield away from street traffic circulation therefore no congestion would result. The design and development of the project shall seek to minimize construction-related trips for workers and equipment.

AQ-20 LETTER CODE

DF0003

AQ-21 COMMENT – CONNELL DUNNING (EPA)

Lease or buy newer, cleaner equipment (1996 or newer model) and utilize low sulfur fuel (diesel with 15 parts per million or less).

AQ-21 RESPONSE

Project BMPs include requiring the use of low-emission construction equipment.

AQ-21 LETTER CODE

DF0003

AQ-22 COMMENT – CONNELL DUNNING (EPA)

Employ periodic, unscheduled inspections to ensure that construction equipment is properly maintained at all times, is tuned to manufacturer's specifications, and is not modified to increase horsepower, except in accord with established specifications.

AQ-22 RESPONSE

Project BMPs include maintaining construction vehicles and equipment which are inspected on a regular basis for operation efficiency.

AQ-22 LETTER CODE

DF0003

AQ-23 COMMENT – CONNELL DUNNING (EPA)

. . . adopt appropriate construction dust control procedures.

AQ-23 RESPONSE

See Response AQ-18 and AQ-19.

Project BMPs will include providing dust controls.

AQ-23 LETTER CODE

DF0003

AQ-24 COMMENT – CONNELL DUNNING (EPA)

Locate construction equipment and staging zones away from sensitive receptors such as children and the elderly, as well as away from fresh air intakes to buildings and air conditioners and reduce idling.

AQ-24 RESPONSE

Sensitive receptors were considered during the air quality analysis. Most of the proposed projects occur on the airfield, which are further away from where sensitive receptors (i.e., people) are present. The siting of staging and laydown areas has taken into consideration sensitive receptors and building equipment such as air intakes and conditions.

AQ-24 LETTER CODE

DF0003

AQ-25 COMMENT – CONNELL DUNNING (EPA)

. . . if an action's direct or indirect emissions of PM2.5, or any precursor that has been identified as a significant contributor to nonattainment for a specific PM2.5 nonattainment area, exceed the 100 ton per year threshold, a General Conformity determination would be required.

AQ-25 RESPONSE

As discussed in Section 5.22, cumulative impacts would not exceed state or federal threshold. Additionally, see Response AQ-5.

AQ-25 LETTER CODE

DF0003

E – Energy

E-1 COMMENT – CONNELL DUNNING (EPA)

We encourage Fresno to continue to "green" facility operations as new facilities, and retrofits of existing facilities, are planned.

E-1 RESPONSE

Available green technology and materials are routinely used for facility upgrades and retrofit at FAT. For example, the current terminal rehabilitation project includes upgrades to mechanical and electrical systems, utilization of natural light, automated sun control devices, recycled materials, low and no V.O.C. materials, and cool roofs. FAT also explores and uses available technology for conserving resources. One such resource is the implementation of airline common use technology for passenger processing, which will enable FAT to meet 20 year forecasted passenger demand without expanding the existing footprint of the building.

See Response AQ-11.

E-1 LETTER CODE

DF0003

CI – Cumulative Impacts

CI-1 COMMENT – CONNELL DUNNING (EPA)

Given that the project is now beginning in 2010, rather than 2007, EPA is concerned that the data and analyses supporting the underlying need and projected impacts may need to be updated in order to accurately reflect potential impacts to be expected up to year 2012.

CI-1 RESPONSE

See Response AQ-3.

The comment comes from a letter issued in 2006 responding to the 2006 Fresno Airport Air Quality Assessment Protocol. Since issuance of the protocol report additional emissions inventories have been evaluated and are discussed in the EA/EIR.

CI-1 LETTER CODE

DF0003

CI-2 COMMENT – CONNELL DUNNING (EPA)

EPA recommends that the Draft Protocol be revised to clarify the need for a thorough indirect impacts and cumulative impact assessment, which should include an analysis of all reasonable foreseeable actions.

CI-2 RESPONSE

See Response CI-1.

CI-2 LETTER CODE

DF0003

CI-3 COMMENT – CONNELL DUNNING (EPA)

Discussion of emissions should be presented within the framework of total emissions for each criteria pollutant for each alternative, i.e., construction emissions and operational emissions, added to background levels.

CI-3 RESPONSE

See Response CI-1.

CI-3 LETTER CODE

DF0003

CI-4 COMMENT – CONNELL DUNNING (EPA)

Coordinate with SCAQMD to: (1) identify a construction schedule to minimize cumulative impacts from multiple development and construction projects in the region, if feasible, to minimize cumulative impacts . . .

CI-4 RESPONSE

Section 5.22 of the EA/EIR identifies potential cumulative impacts associated with the project. FAT would coordinate with the SJVAPCD, the local air quality management district, in the future when a project is closer to implementation. This information could be made available to SCAQMD by the SJVAPCD.

CI-4 LETTER CODE

DF0003

LU – Compatible Land Use and Community Services

LU-1 COMMENT – CONNELL DUNNING (EPA)

Given the estimated population increases expected in the project vicinity, the proposed project should be analyzed with consideration of the anticipated land use changes that will accommodate increasing population growth.

LU-1 RESPONSE

The City of Fresno has specific plans that outline development policies for land adjacent to the Airport. Fresno County Airport Land Use Commission reviews proposed development for adherence to adopted plans and policies.

As discussed in Section 5.3.2, the land use and community services analysis considered existing and future plans from the jurisdictions in the GSA and DSA along with the various environmental analyses conducted in conjunction with this study to determine whether implementation of the alternatives studied would result in impacts. The General Plans for the GSA were also reviewed to ensure land use compatibility for adjacent properties affected by future Airport operations. Potential direct and indirect effects of the alternatives studied were then evaluated.

LU-1 LETTER CODE

DF0003

T – Surface Transportation and Traffic

T-1 COMMENT – JOANNE STRIEBICH (CALIFORNIA DEPARTMENT OF TRANSPORTATION)

State Route (SR) 168 and SR 180 have taken into consideration the traffic impact from the airport. However, should additional commercial or industrial uses be proposed, Caltrans requests the opportunity to review and comment on these projects.

T-1 RESPONSE

Comment noted.

T-1 LETTER CODE

DS0001

M-Miscellaneous

M-1 COMMENT – CONNELL DUNNING (EPA)

Please send a copy of the Master Plan Update that was completed by City of Fresno in 2006 and is referenced in the Draft Air Quality Protocol to EPA . . .

M-1 RESPONSE

At this point forward the City of Fresno and FAA will continue to communicate with the U.S. EPA about what documents are needed for review of the Improvements Project at FAT.

M-1 LETTER CODE

DF0003

M-2 COMMENT – CONNELL DUNNING (EPA)

In addition, once the EA or EIS is released for public review, please send three copies . . .

M-2 RESPONSE

Comment noted. One copy of the Draft EA/EIR was sent to U.S. EPA.

M-2 LETTER CODE

DF0003

WQ – Water Quality

WQ-1 COMMENT – NEDA SHAKERI (FRESNO METROPOLITAN FLOOD CONTROL DISTRICT)

Details of the Airport Storm Drainage Master Plan including all development plans (grading, street, and storm drain) will need to be reviewed and approved by the District.

WQ-1 RESPONSE

Comment noted.

FAT plans to continue to work with the district as projects relate to the Airport Storm Drainage Master Plan. Section 5.8 of the EA/EIR discusses the ongoing coordination between FAT and the Fresno Metropolitan Flood Control District.

WQ-1 LETTER CODE

DL0001

WQ-2 COMMENT – BILL STRECTCH (FRESNO IRRIGATION DISTRICT)

FID conditionally approves the proposed improvements subject to following. . . will be determined by FID.

WQ-2 RESPONSE

Comments noted.

Fresno and FAA will work to incorporate the requests of the Fresno Irrigation District to the extent possible and will continue to coordinate with the District to reach agreement on steps to be taken for the Storm Drainage Master Plan for the Airport and to develop the best solution for implementing off-site storm mitigation.

WQ-2 LETTER CODE

DL0003

CN – CEQA/NEPA Process

CN -1 COMMENT – SANDY HESNARD (CALIFORNIA DEPARTMENT OF TRANSPORTATION – DIVISION OF AERONAUTICS)

Prior to amending the State airport permit or releasing State funds for airport projects, the Division, as a Responsible Agency, must be assured that the proposal is in full compliance with CEQA. The EA/EIR appears to adequately address the Division's concerns relating to CEQA.

CN - 1 RESPONSE

Comment noted.

CN -1 LETTER CODE

DS0002

CN -2 COMMENT – SCOTT MORGAN (STATE CLEARINGHOUSE)

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

CN - 2 RESPONSE

Comment noted.

CN -2 LETTER CODE

DS0003

From: Hanlon, Erin M SPK [mailto:Erin.M.Hanlon@usace.army.mil]
Sent: Thursday, October 29, 2009 11:22 AM
To: Kevin Meikle
Subject: Fresno Yosemite International Airport Improvement Project Comments

Dear Mr. Meikle:

I am responding to your October 28, 2009 request for comments on the 1,265 acre Fresno Yosemite International Airport improvement project. The proposed project consists of various improvements at Fresno Yosemite International Airport to efficiently accommodate existing and forecasted aviation demand for air carrier, air cargo, air taxi, business and general aviation, flight training, and military services in the region. The project is located inbound by East McKinley Avenue, East Clinton Avenue, North Chestnut Avenue, East Dakota Avenue, East Airways Boulevard, and North Clovis Avenue in Fresno County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

You have not provided us with adequate information for determining whether there are any waters of the United States on the project site. To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetland Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location. W-1

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation. A-1 W-2 W-3

If you have any questions, please contact Erin Hanlon at U.S. Army Corps of Engineers, Regulatory Division, 1325 J Street, Rm 1480, Sacramento, CA 95814, email Erin.M.Hanlon@usace.army.mil, or telephone 916-557-5250. For more information regarding our program, please visit our website at www.spk.usace.army.mil/regulatory.html .

Thank you,
Erin M. Hanlon

Sacramento District, Regulatory Branch
U.S. Army Corps of Engineers
1325 J Street, Room 1480
Sacramento, CA 95814-2922
(916) 557-7759
(Fax) 557-6877
erin.m.hanlon@usace.army.mil
Regulatory Website: www.spk.usace.army.mil/regulatory.html

Our customer service hours are from 10 am-2:30 pm, M-F. E-mail and telephone calls will only be answered during this time.

Please let us know how we are doing by submitting a customer service survey at
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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2010-I-0088-01

NOV 0 9 2009

Memorandum

To: Douglas R. Pomeroy, Federal Aviation Administration, Western-Pacific Region Airports Division, San Francisco Airports District Office, Burlingame, California

From: Assistant Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Request for Comments on the Environmental Assessment/Environmental Impact Report for Improvements and Request for Informal Interagency Consultation under the Endangered Species Act, for the Fresno Yosemite International Airport, Fresno County, California

This memorandum is in response to your October 23, 2009, request that the U.S. Fish and Wildlife Service (Service) review and comment on the October 2009 Draft Environmental Assessment (EA)/ Environmental Impact Report (EIR) (Report) for the proposed Fresno Yosemite International Airport and Landside Projects (Project). Your memorandum also included a second request for our review of the Report, and our concurrence with your determination that the proposed Project may affect, but is not likely to adversely affect federally-listed species. The Report identified 36 federally-listed species as a result of record searches from the California Natural Diversity Database 2006 (CNDDB) and the 2009 Service List of Endangered and Threatened Species. The federally-listed species that are addressed in the Report are: 1) The federally-listed as threatened California tiger salamander (*Ambystoma californiense*); 2) the federally-listed as threatened vernal pool fairy shrimp (*Branchinecta lynchi*); and 3) the federally-listed as endangered vernal pool tadpole shrimp (*Lepidurus packardi*).

The Detailed Study Area (DSA) of the proposed Project incorporates 1,265 acres and is generally located east of State Highway 41 and north of State Highway 180 in the City of Fresno, Fresno County, California. Your October 23, 2009 letter and a copy of the October 2009 *Draft EA/EIR for Improvements at Fresno Yosemite International Airport, Fresno, California* (Report), prepared by URS Corporation, was received in our office on October 26, 2009. Our comments are submitted pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

TAKE PRIDE IN AMERICA

The scope of work for the proposed Project is outlined below and is separated into three categories: 1) Airside; 2) Landside; and 3) Other Projects. The work is scheduled to be implemented between years 2009 – 2014.

Airside Projects

- Extend the length of secondary runway from 7,206 feet to 8,000 feet to the west;
- Widen a secondary runway from 100 feet to 150 feet;
- Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B2, B4, C, C4, Hold Pad B, and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building; and
- Relocate and rehabilitate an airfield service road.

Landside Projects

- Reconfigure parking area for employees; and
- Implement public parking improvements, including replacement of existing parking attendant structure.

Other Projects

- Acquire 21.0 acres off-site to construct a new detention basin; and
- Implement storm drainage improvements, including conversion of North Chestnut/East Shields Basin storm water holding area to detention basin with pump station and infrastructure improvements associated with runway/taxiway work.

We require additional information before we can determine if we concur or don't concur with your finding that the proposed Project may affect, but is not likely to adversely affect any federally-listed species. Please provide the following additional information:

- An updated CNDDB records search for the DSA and the GSA (Generalized Study Area) as this information is outdated after six months; and B-1
- A current species reconnaissance survey since the January 2006 survey was four years ago. The survey should ascertain if any federally-listed species and/or their habitat is within the proposed GSA. The survey should also include an assessment of the proposed detention basin location for kit fox prey and potential use of that site. B-2

We appreciate your efforts to protect the listed species. Please contact either Ms. Kellie Berry or Ms. Susan Jones (Chief, San Joaquin Valley Branch) at (916)414-6630 should you have any questions regarding this response.

cc:
CDFG, Fresno, California (Attn: Justin Sloan)
City of Fresno Airports, Fresno (Attn: Kevin Meikle)

DEC-07-2009 MON 05:54 PM U.S.E.P.A. FAX NO. 4159478026 P. 01

DEC 08 AM 06:34

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
OFFICE: (415)947-8704 FAX (415)947-8026

COMMUNITIES AND ECOSYSTEMS DIVISION

FAX TRANSMISSION COVER SHEET

FROM

Number of Pages: 10

NAME: Connell Dunning

DATE: 12-7-09

TELEPHONE NO: 415 9474461

FAX NO: (415) 947-8026

DEPARTMENT/OFFICER:

TO

NAME: Meenakshi Singh

TELEPHONE NO: 559-251-4825 FAX NO:

DEPARTMENT/OFFICE:

SUBJECT:

REMARKS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

December 7, 2009

Doug Pomeroy
Federal Aviation Administration
San Francisco Airports District Office
831 Mitten Road, Suite 210
Burlingame, CA 94010-1303

Subject: EPA Review of Draft Environmental Assessment for the proposed Fresno Airport

Dear Mr. Pomeroy:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Assessment prepared for the proposed Fresno Airport. EPA provided scoping comments via email to Aimee Kratovil on October 6, 2005 and provided comments on the Air Quality Assessment Protocol (July 2006 Version) on July 27, 2006. EPA's review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

EPA's previously provided comments included several recommendations related to project assumptions, National Ambient Air Quality Standards, and hazardous air pollutant emissions. While our Scoping comments were included in the Agency Outreach section of the Draft EA, it appears that the extensive comments that we provided regarding the air quality methodology were not referenced or considered. We have provided the July 27 comment letter, in its entirety, as an attachment and re-submit those air quality related comments for your consideration at this time. AQ-1

The Draft EA states that the NEPA analysis covers projects proposed in the next 5 years; however, throughout the document, data and analysis is provided out to 2012 only, rather than 2015. Given that the project is now beginning in 2010, rather than 2007, EPA is concerned that the data and analyses supporting the underlying need and projected impacts may need to be updated in order to accurately reflect potential impacts to be expected up to year 2012. CI-1

EPA commends City of Fresno for integrating an on-site solar facility for generating power for airport facility operations. We encourage Fresno to continue to "green" facility operations as new facilities, and retrofits of existing facilities, are planned. GS-1 E-1

If you have any questions concerning our comments, please contact me at 415-947-4161 or by electronic mail at dunning.connell@epa.gov.

Sincerely,

Connell Dunning, Supervisor
Transportation Team
Environmental Review Office

Attachments:
EPA's July 27, 2006 Comment Letter reviewing the Fresno Airport Air Quality Protocol Assessment

cc: Kevin Meikle, City of Fresno

project file

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

July 27, 2006

Aimee Kratovil
Federal Aviation Administration
San Francisco Airports District Office
831 Mitten Road, Suite 210
Burlingame, CA 94010-1303

Subject: EPA Review of proposed Fresno Airport Federal Air Quality Assessment Protocol (July 2006 Version)

Dear Ms. Kratovil:

The U.S. Environmental Protection Agency (EPA) has reviewed the proposed Fresno Airport Air Quality Assessment Protocol dated July 2006. EPA provided scoping comments on the proposed project through an October 6, 2006 via email and appreciates the opportunity to provide an early review of the protocol. When the Environmental Assessment (EA) or Environmental Impact Statement (EIS) is completed, EPA will provide formal comments on the document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

EPA's comments include several recommendations related to project assumptions, National Ambient Air Quality Standards, and hazardous air pollutant emissions. We look forward to continued involvement with this project. Please send a copy of the Master Plan Update that was completed by City of Fresno in 2006 and is referenced in the Draft Air Quality Protocol to EPA at the address above (mailcode CED-2). M-1 In addition, once the EA or EIS is released for public review, please send three copies to the same address. M-2 If you have any questions concerning our comments, please contact me or Connell Dunning, the lead reviewer for this project. Connell can be reached at 415-947-4161 or by electronic mail at dunning.connell@epa.gov.

Sincerely,

Connell Dunning

for Duane James, Manager
Environmental Review Office

Attachments:
EPA's Comments for Fresno Airport Air Quality Protocol Assessment
Internal Policy for General Conformity (April 2, 2006)

cc: Keith Dewey, URS Corporation
Kevin Meikle, City of Fresno

Printed on Recycled Paper

EPA COMMENTS ON DRAFT FRESNO AIRPORT AIR QUALITY ASSESSMENT PROTOCOL, JULY 27, 2006

The following comments are provided following EPA's review of the July 2006 version of the Air Quality Assessment Protocol (Protocol) for Fresno Airport.

Section 1.0

The Council on Environmental Quality's (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) define cumulative effects as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions (40 CFR Part 1508.7). The following description of cumulative impacts is included in *Chapter 1 – CEQ Considering Cumulative Effects Under the National Environmental Policy Act* (1997):

> "The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects. Specifically, NEPA requires that all related actions be addressed in the same analysis. For example, the expansion of an airport runway that will increase the number of passengers traveling must address not only the effects of the runway itself, but also the expansion of the terminal and the extension of roadways to provide access to the expanded terminal. If there are similar actions planned in the area that will also add traffic or require roadway extensions (even though they are nonfederal), they must be addressed in the same analysis."

The Protocol states that "the airport future growth improvements are …qualitatively discussed in the Draft Environmental Assessment (EA)/Environmental Impact Report (EIR) to encompass the known potential cumulative and induced impacts anticipated in the region", but that "the Draft EA/EIR will not analyze the need for the long-term projects, nor will it investigate the potential project level environmental impacts connected to future growth years because these projects are not suitable for Federal Aviation Administration (FAA) decision and specific details regarding these facilities are not known at this time".

Recommendation:

> EPA recommends that the Draft Protocol be revised to clarify the need for a thorough indirect impacts and cumulative impact assessment, which should include an analysis of all reasonable foreseeable actions. Given the estimated population increases expected in the project vicinity, the proposed project should be analyzed with consideration of the anticipated land use changes that will accommodate increasing population growth. CI-2 LU-1

Section 3.0

The Fresno Yosemite International Airport (FAT) is located in a nonattainment area for the 8-hour ozone National Ambient Air Quality Standard (NAAQS), and the particulate matter less than ten microns in diameter (PM10) and particulate matter less than 2.5 microns in diameter (PM2.5) NAAQS. The Draft EA/EIR should identify if emissions will cause or contribute to exceedances of

the NAAQS for ozone, PM10 or PM2.5 in any year from the start of construction through full build-out. We understand that the focus of the EA/EIR will be on the "short-term (2006-2011)" projects.

Recommendations:

- Discussion of emissions should be presented within the framework of total emissions for each criteria pollutant for each alternative, i.e., construction emissions and operational emissions, added to background levels. If a general conformity determination for ozone, PM10 or PM2.5 is required, the Draft EA/EIR should include the determination with related mitigation commitments. CI-3 AQ-2

  The methods used to estimate emissions should reflect the latest available data and be consistent with the methods used for the State Implementation Plan (SIP) and Regional Transportation Plan (RTP) conformity determinations. In addition, FAA should work with the San Joaquin Valley Air Pollution Control District and the Fresno Council of Governments (FCOG) to ensure that applicable elements of the proposed project are consistent with future revisions of the RTP. The most current EPA-approved model should be used to estimate mobile-source emissions, including re-entrained PM10 emissions. All methods and assumptions for analyses should be presented with pertinent air quality analyses and conclusions. AQ-3

The attached interim policy guidance *(Internal Policy for General Conformity, April 2, 2006)* states that EPA believes that it is appropriate for Federal agencies to use the PM10 de minimis level of 100 tons per year (tpy) as a surrogate for PM2.5 de minimis levels in their General Conformity applicability analysis.

Recommendation:

- If direct or indirect emissions of PM2.5, or any precursor that has been identified as a significant contributor to nonattainment for a specific PM2.5 nonattainment area, exceed the 100 tpy threshold, a general conformity determination is required. AQ-4

Section 4.0

The Protocol states that a total of 5 airside project elements will not cause any change in operational emissions, so no assessment is proposed. The Protocol also states that construction of a consolidated rental car facility, a new terminal parking garage, and a new employee parking area will not cause any increases in future operational emissions from motor vehicles, so no assessment of emissions is proposed. No justification or data to support these conclusions is provided in the Protocol. The construction of multiple new parking facilities has the potential to increase motor vehicle emissions and the EA/EIR is the proper venue to demonstrate what emissions increases may or may not be associated with the proposed project.

Recommendations:

- EPA recommends that the EA/EIR include an analysis of the potential emissions, including particulate matter hot spot analyses, from the construction and operation of the multiple AQ-5

parking structures planned. In addition, EPA recommends that FAA and City of Fresno consider incorporating consolidated zero-emissions or alternative fuel buses for transporting passengers between the airport and the rental car facility. AQ-6

- FAA and City of Fresno should work with the FCOG and the San Joaquin Valley Air Pollution Control District to determine what operational emissions will result from the landside improvements if those emissions are accounted for in the San Joaquin Valley's SIP. AQ-7

EPA disagrees with the statement in Section 4.2 regarding the inability to quantify potential impacts from hazardous air pollutants (HAP) in a meaningful way, given the limitations of existing modeling tools and critical input data, including HAP speciation profiles for commercial jet aircraft engines. Several key inputs are admittedly uncertain, and EPA continues to work with FAA and other partners to refine those inputs. However, there is sufficient information available to provide for a meaningful comparison of alternatives, and to inform mitigation decisions for projects that would benefit from such analysis, such as those with higher impact potential than Fresno Airport. EPA worked as a cooperating agency with FAA to develop a HAP analysis for the O'Hare Airport Modernization Project EIS (see Appendix I of the EIS, available at http://www.agl.faa.gov/OMP/EISTechSim/ReferenceDocuments/DEISdocs.htm). A human health risk assessment may not be necessary for Fresno Airport given the minor increases in operational emissions, but risk assessment may be appropriate for incorporation into other NEPA documents. EPA is available to work with FAA in the future, to identify appropriate analysis methodologies for projects with potentially significant impacts from HAPs. Furthermore, EPA has concerns with the decision to not discuss HAPs as they relate to construction impacts.

Recommendation:

- Discuss the potential HAPs related to construction activity and include an assessment of HAPs from construction-related activities. Incorporate mitigation measures to reduce HAPs exposure from construction. AQ-8

Section 5.0

In Section 5.0 the Protocol states that the area is an ozone nonattainment area, but does not mention that it is also a PM10 and PM2.5 nonattainment area.

Recommendation:

- Correct Section 5.0 of the Protocol to reflect that the area is a PM10 and PM2.5 nonattainment area. Any conformity assessment will also need to address the pollutants and precursors associated with PM10 and PM2.5 nonattainment in the San Joaquin Valley. AQ-9

Mitigation

Section 1, Page 3 states that "To the extent necessary, air quality mitigation measures will also be evaluated." Under NEPA "all relevant, reasonable mitigation measures that could improve the project are to be identified. Mitigation measures must be considered even for impacts that by themselves would not be considered significant. Once the proposal itself is considered as a whole to

have significant effects....mitigation measures must be developed where it is feasible to do so" (see CEQ, 1981, "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations"). CEQ also issued guidance on integrating pollution prevention measures in NEPA documents and NEPA decisions (1993 Memorandum on Pollution Prevention and NEPA).

Recommendation:

- EPA is concerned with the current proposal to evaluate mitigation measures only "to the extent necessary" as stated on page 3 of the Protocol. EPA recommends that FAA and City of Fresno incorporate all feasible pollution prevention and mitigation measures to reduce environmental impacts of the proposed project, as recommended by CEQ. AQ-10

Given the area's nonattainment status for 8-hour ozone, PM10, and PM2.5, EPA recommends that the Final EA identify specific feasible measures to reduce emissions associated with the project's construction and operation to ensure that the air basin achieves timely attainment of applicable federal air quality standards. This is particularly important given the poor air quality in the San Joaquin Valley. The Protocol states that no project-related emissions will result from ground service equipment, auxiliary power units, fuel storage and handling, etc., so no analysis of these emissions will be included.

Recommendations:

- EPA recommends that FAA and City of Fresno use this opportunity to assess the air quality benefits that could result from the incorporation of mitigation measures to reduce impacts to air quality from these sources. On September 30, 2004, EPA's Office of Air Quality Planning and Standards issued guidance for a new program to reduce emissions from airport vehicles and infrastructure. Under the program the FAA will approve funding of projects to voluntarily reduce emissions at airports. In turn, the airport will receive emission reduction credits that can be used for demonstrating general conformity or as new source review offsets. The Final EA should identify measures utilizing EPA's "Guidance on Airport Emission Reduction Credits for Early Measures through Voluntary Airport Low Emissions Programs" (accessible at www.epa.gov/ttn/oarpg/genconformity.html). AQ-11

Operational Recommendations:

Evaluate the feasibility of the following measures to minimize emissions during operation and include in the Draft EA/EIR commitments for incorporating feasible measures:

- Expand electric and alternative fuel infrastructure facilities for ground support equipment and for ground access vehicles. AQ-12
- Adopt and encourage incentive programs, including pricing structures, to reduce commute trips for airport and tenant employees. AQ-13
- Establish specific, quantifiable goals to reduce emissions from ground support equipment and auxiliary power units (APU) which, together with aircraft, constitute the largest source of on-airport emissions. AQ-14

- Establish incentive programs to motivate airlines to minimize APU use, thus reducing fuel use and emissions. Provide specific incentives to airlines to replace older, more polluting APUs with newer, more fuel efficient APUs with electronic engine control units and integration of the APU and aircraft control systems. AQ-15
- Identify specific, quantifiable targets to reduce emissions for any strategy that is adopted by FAA. AQ-16
- Identify alternative fuel projects to reduce emissions from on-airport and off-airport sources and other methods. AQ-17

Construction Recommendations:

Discuss and evaluate the feasibility of incorporating the following measures to minimize emissions during construction. Include applicable measures in a Construction Emissions Mitigation Plan, as appropriate, in order to reduce impacts associated with emissions of PM10, diesel particulate matter (DPM), and air toxics from construction-related activities.

- Use particle traps and other appropriate controls to reduce emissions of DPM and other air pollutants. Traps control approximately 80 percent of DPM, and specialized catalytic converters (oxidation catalysts) control approximately 20 percent of DPM, 40 percent of CO emissions, and 50 percent of hydrocarbon emissions. AQ-18
- Visible emissions from all heavy duty off-road diesel equipment should not exceed 20 percent opacity for more than three minutes in any hour of operation. AQ-19
- Minimize construction-related trips of workers and equipment, including trucks and heavy equipment and establish an activity schedule designed to minimize traffic congestion around the construction site. AQ-20
- Lease or buy newer, cleaner equipment (1996 or newer model) and utilize low sulfur fuel (diesel with 15 parts per million or less). AQ-21
- Employ periodic, unscheduled inspections to ensure that construction equipment is properly maintained at all times, is tuned to manufacturer's specifications, and is not modified to increase horsepower, except in accord with established specifications. AQ-22
- Coordinate with SCAQMD to:(1) identify a construction schedule to minimize cumulative impacts from multiple development and construction projects in the region, if feasible, to minimize cumulative impacts, and (2) adopt appropriate construction dust control procedures. CI-4 AQ-23
- Locate construction equipment and staging zones away from sensitive receptors such as children and the elderly, as well as away from fresh air intakes to buildings and air conditioners and reduce idling. AQ-24

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

APR 3 2006

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Interim Policy for General Conformity Applicability in PM2.5 Nonattainment Areas

FROM: William T. Harnett
Director, Air Quality Policy Division

TO: Regional Air Division Directors

In accordance with the General Conformity Regulations which apply to Federal actions in nonattainment areas one year after the areas are designated nonattainment, General Conformity requirements become effective for Federal actions in PM2.5 nonattainment areas after April 5, 2006. The General Conformity Regulations require a general conformity determination for Federal actions in nonattainment and maintenance areas where direct and indirect emissions are equal or exceed rates specified in the rule. Federal actions with emissions below these levels are considered to have emission increases that are clearly de minimis and do not have to make conformity determinations.

The Environmental Protection Agency (EPA) is issuing a direct final rule with an accompanying proposal to establish de minimis levels for emissions of PM2.5 and its precursors. The de minimis levels for PM2.5 and its precursors are not effective upon publication of the direct final rule, and therefore are subject to change. In the absence of adverse comments this rule will become effective in 60 days or possibly longer if there are comments EPA must consider. Therefore, there will be a period of time where Federal agencies will have to perform General Conformity applicability analysis without the benefit of published de minimis thresholds for PM2.5.

During this time EPA believes it is appropriate for Federal agencies to use the PM-10 de minimis level of 100 tons per year as a surrogate for PM2.5 de minimis levels in their General Conformity applicability analysis. Since PM2.5 emissions are a subset of PM-10 emissions, PM2.5 emissions and its precursors will always be less than PM-10 (PM-10 consists of all particulate matter measuring 10 microns and below). Though PM2.5 may be formed in the atmosphere from precursor emissions (nitrous oxides, sulfur dioxide, VOC and ammonia) the use of the PM-10 thresholds serves as a reasonable surrogate for the precursor emissions and their contribution to PM2.5 nonattainment. Under this guidance, if an action's direct or indirect emissions of PM2.5, or any precursor that has been identified as a

AQ-25

significant contributor to nonattainment for a specific PM2.5 nonattainment area, exceed the 100 ton per year threshold, a General Conformity determination would be required. AQ-25 (Cont.)

If you have questions about the applicability of the General Conformity regulations in PM2.5 nonattainment areas please contact Tom Coda at 919-541-3037.

cc: Kevin McLean, OGC
Sara Schneeberg, OGC
Robert Moyer, OGC
Robert Meyers, OAR
Kimber Scavo, OAQPS
Tom Coda, OAQPS
Robert Hargrove, NEPA Compliance Division
Merrylin Zaw-Mon, OTAQ

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
1352 WEST OLIVE AVENUE
P. O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 488-4347
FAX (559) 488-4088
TTY (559) 488-4066

Flex your power!
Be energy efficient!

November 9, 2009

2131-IGR/CEQA
6-FRE-168-2.0+/-;
FRE-180-60.9+/-
FRESNO YOSEMITE INTERNATIONAL
AIRPORT DRAFT EA/EIR

Mr. Kevin Meikle
Airports Planning Manager
City of Fresno - Airports
4995 East Clinton Way
Fresno, CA 93727

Dear Mr. Meikle:

We have reviewed the Draft EA/EIR for the proposed improvements at the Fresno Yosemite International Airport. The airport is bounded by Dakota, Clovis, McKinley and Chestnut Avenues. We have the following comments:

State Route (SR) 168 and SR 180 have taken into consideration the traffic impacts from the airport. However, should additional commercial or industrial uses be proposed, Caltrans requests the opportunity to review and comment on these projects. T-1

If you have any questions, please call me at (559) 488-4347.

Sincerely,

Joanne Striebich

JOANNE STRIEBICH
Office of Transportation Planning
District 6

C: Ms. Sandy Hesnard, Caltrans Aeronautics
Mr. Tony Boren, Council of Fresno County Governments

"Caltrans improves mobility across California"

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
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Flex your power!
Be energy efficient!

DEC 03 PM01:30

November 24, 2009

Mr. Kevin Meikle
City of Fresno
4995 East Clinton Way
Fresno, CA 93737

Dear Mr. Meikle:

Re: City of Fresno's Draft Environmental Assessment/Environmental Impact Report for Improvements at Fresno Yosemite International Airport; SCH# 2005061150

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operational safety, noise and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public and special-use airports and heliports. The following comments are offered for your consideration.

According to the Draft Environmental Assessment/Environmental Impact Report (EA/EIR), the proposed project consists of improvements at Fresno Yosemite International Airport (FAT) that are expected to be accomplished within the next five years (i.e., 2009-2014), as well as improvements and projects that extend beyond five years (i.e., 2015-2025).

Project components for 2009-2014 include:

Airside Projects
- Extend length of secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet to the west;
- Widen secondary runway from 100 feet to 150 feet;
- Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B2, B4, C, C4, Hold Pad B, and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building; and
- Relocate and rehabilitate airfield service road.

Landside Projects
- Reconfigure parking area for employees; and
- Implement public parking improvements, including replacement of existing parking attendant structure.

Other Projects
- Acquire land and construct new offsite detention basin (21 acres); and
- Implement storm drainage improvements, including conversion of North Chestnut/East Shields Basin storm water holding area to detention basin with pump station and infrastructure improvements associated with runway and taxiway work.

Planning Projects
- Update the Fresno County Airport Land Use Plan based on the noise contours and safety data and establish consistency with the City of Fresno updated Airport and Environs Plan; and
- City of Fresno General Plan Amendment to update the City of Fresno Airport and Environs Plan based on updated noise contours, safety data and establish consistency with the Fresno County Airport Land Use Plan.

The following airside and landside improvement projects are proposed to be implemented between 2015 and 2025 and are evaluated at the program level for CEQA only according to the EA/EIR.

Airside Projects
- Rehabilitate Taxiways B5, B7, B8, B11, and C12;
- Rehabilitate general aviation aprons;
- Rehabilitate aircraft maintenance apron;
- Install Category III Instrument Landing System for secondary runway (Runway 11R/29L); and
- Improve the Surface Movements Guidance and Control System (SMGCS) on all taxiways.

Other Projects
- Implement storm drainage improvements, including rehabilitation and enlargement of McKinley/Clovis pump station, and infrastructure improvements associated with runway and taxiway work.

The proposed runway extension will require an amended State airport permit in accordance with Public Utilities Code (PUC) Section 21664.5 (b) (3). Detailed information regarding the State airport permit amendment process is available on-line at http://www.dot.ca.gov/hq/planning/aeronaut/airportpermit.html. P-1
The applicant should also be advised to contact the Division's Aviation Safety Officer for Fresno County, Don Haug, at (916) 654-5174, to request an Amended State Airport Permit-Application package. P-2

Prior to amending the State airport permit or releasing State funds for airport projects, the Division, as a Responsible Agency, must be assured that the proposal is in full compliance with CEQA. The EA/EIR appears to adequately address the Division's concerns relating to CEQA. CN-1

PUC Section 21659 prohibits structural hazards on or near airports. Structures should not be at a height that will result in penetration of the airport imaginary surfaces. Federal Aviation Administration (FAA) Advisory Circular 150/5370-2E "Operational Safety on Airports During Construction" should be incorporated into the project design in order to identify any permanent or temporary construction-related impacts (e.g. construction cranes) to the airport or heliport imaginary surfaces. The FAA may also require the filing of a Notice of Proposed Construction or Alteration (Form 7460-1) for certain project-specific activities in accordance with Federal Aviation Regulations Part 77 "Objects Affecting Navigable Airspace." Form 7460-1 is available on-line at https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

These comments reflect the areas of concern to the Division of Aeronautics with respect to airport-related noise, safety, and regional land use planning issues. We advise you to contact our District 6 office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314 or by email at sandy.hesnard@dot.ca.gov.

Sincerely,

Sandy Hesnard

SANDY HESNARD
Aviation Environmental Specialist

c: State Clearinghouse, Fresno County ALUC, FAT

DEC 23 PM12:39

PROJECT FILE

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

December 10, 2009

Kevin Meikle
City of Fresno
4995 East Clinton Way
Fresno, CA 93727

Subject: Improvements at Fresno Yosemite International Airport (FAT)
SCH#: 2005061150

Dear Kevin Meikle:

The State Clearinghouse submitted the above named Joint Document to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 7, 2009, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. CN-2

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2005061150
Project Title Improvements at Fresno Yosemite International Airport (FAT)
Lead Agency Fresno, City of

Type JD Joint Document

Description The Project consists of various improvements at FAT to efficiently accommodate FAA forecasted aviation demand for air carrier, air cargo, air taxi, business and general aviation, flight training, and military services in the region. The Project consists of improvements that are expected to be accomplised within the next 5 years (2009-2014), as well as improvements that extend beyond 5 years (2015-2025).

Lead Agency Contact

Name Kevin Meikle
Agency City of Fresno
Phone (559) 621-4536 **Fax**
email
Address 4995 East Clinton Way
City Fresno **State** CA **Zip** 93727

Project Location

County Fresno
City Fresno
Region
Lat / Long 36° 27" N / 119° W
Cross Streets Clinton Way / McKinley Avenue
Parcel No.
Township 13S **Range** 21E **Section** S30 **Base** MDB&M

Proximity to:

Highways 168, 180
Airports Fresno Yosemite Int'l
Railways ATSF
Waterways Mill Ditch
Schools Scandinavian MS,McLane,Ducan Poly, Cart HS,Sacred Heart
Land Use Airport, Open Conservation (O), Light Manufacturing (M-1), Industrial Park Manufacturing (M-1-P).

Project Issues Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Aesthetic/Visual; Agricultural Land; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 4; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 6; Air Resources Board, Airport Projects; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission

Date Received 10/22/2009 **Start of Review** 10/22/2009 **End of Review** 12/07/2009

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942874
SACRAMENTO, CA 94274-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY (916) 651-6827

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STATE CLEARING HOUSE

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12-7-09
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November 24, 2009

Mr. Kevin Meikle
City of Fresno
4995 East Clinton Way
Fresno, CA 93737

Dear Mr. Meikle:

Re: City of Fresno's Draft Environmental Assessment/Environmental Impact Report for Improvements at Fresno Yosemite International Airport; SCH# 2005061150

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operational safety, noise and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public and special-use airports and heliports. The following comments are offered for your consideration.

According to the Draft Environmental Assessment/Environmental Impact Report (EA/EIR), the proposed project consists of improvements at Fresno Yosemite International Airport (FAT) that are expected to be accomplished within the next five years (i.e., 2009-2014), as well as improvements and projects that extend beyond five years (i.e., 2015-2025).

Project components for 2009-2014 include:

Airside Projects
Extend length of secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet to the west;
- Widen secondary runway from 100 feet to 150 feet;
Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B2, B4, C, C4, Hold Pad B, and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building; and
- Relocate and rehabilitate airfield service road.

Landside Projects
- Reconfigure parking area for employees; and
- Implement public parking improvements, including replacement of existing parking attendant structure.

Other Projects
- Acquire land and construct new offsite detention basin (21 acres); and
- Implement storm drainage improvements, including conversion of North Chestnut/East Shields Basin storm water holding area to detention basin with pump station and infrastructure improvements associated with runway and taxiway work.

Planning Projects
- Update the Fresno County Airport Land Use Plan based on the noise contours and safety data and establish consistency with the City of Fresno updated Airport and Environs Plan; and
- City of Fresno General Plan Amendment to update the City of Fresno Airport and Environs Plan based on updated noise contours, safety data and establish consistency with the Fresno County Airport Land Use Plan.

The following airside and landside improvement projects are proposed to be implemented between 2015 and 2025 and are evaluated at the program level for CEQA only according to the EA/EIR.

Airside Projects
- Rehabilitate Taxiways B5, B7, B8, B11, and C12;
- Rehabilitate general aviation aprons;
- Rehabilitate aircraft maintenance apron;
- Install Category III Instrument Landing System for secondary runway (Runway 11R/29L); and Improve the Surface Movements Guidance and Control System (SMGCS) on all taxiways.

Other Projects
- Implement storm drainage improvements, including rehabilitation and enlargement of McKinley/Clovis pump station, and infrastructure improvements associated with runway and taxiway work.

The proposed runway extension will require an amended State airport permit in accordance with Public Utilities Code (PUC) Section 21664.5 (b) (3). Detailed information regarding the State airport permit amendment process is available on-line at http://www.dot.ca.gov/hq/planning/aeronaut/airportpermit.html. The applicant should also be advised to contact the Division's Aviation Safety Officer for Fresno County, Don Haug, at (916) 654-5174, to request an Amended State Airport Permit-Application package.

Prior to amending the State airport permit or releasing State funds for airport projects, the Division, as a Responsible Agency, must be assured that the proposal is in full compliance with CEQA. The EA/EIR appears to adequately address the Division's concerns relating to CEQA.

PUC Section 21659 prohibits structural hazards on or near airports. Structures should not be at a height that will result in penetration of the airport imaginary surfaces. Federal Aviation Administration (FAA) Advisory Circular 150/5370-2E "Operational Safety on Airports During Construction" should be incorporated into the project design in order to identify any permanent or temporary construction-related impacts (e.g. construction cranes) to the airport or heliport imaginary surfaces. The FAA may also require the filing of a Notice of Proposed Construction or Alteration (Form 7460-1) for certain project-specific activities in accordance with Federal Aviation Regulations Part 77 "Objects Affecting Navigable Airspace." Form 7460-1 is available on-line at https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

These comments reflect the areas of concern to the Division of Aeronautics with respect to airport-related noise, safety, and regional land use planning issues. We advise you to contact our District 6 office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314 or by email at sandy.hesnard@dot.ca.gov.

Sincerely,

Original Signed by

SANDY HESNARD
Aviation Environmental Specialist

c: State Clearinghouse, Fresno County ALUC, FAT

DL0001

PROJECT FILE

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

File 550.30 (Airport)
170.689
NOV 17 PM 12:21

November 12, 2009

Kevin Meikle-Airports Planning Manager
Airports Planning Manager
City of Fresno-Airports
4995 E. Clinton Way
Fresno, CA 93727-1525

Fresno Yosemite International Airport
Draft Environmental Impact Report

The District has reviewed the subject Draft Environmental Assessment/Environmental Impact Report and finds no major issues with the proposed drainage plan. Details of the Airport Storm Drainage Master Plan including all development plans (grading, street, and storm drain) will need to be reviewed and approved by the District. WQ-1

Thank you for the opportunity to comment. Please keep our office informed on the development of this project. If you should you have any questions or comments, please contact the District at (559) 456-3292.

Very truly yours,

Neda Shakeri
Engineer III

NS/lrl

K:\Environmental impact report letters\DEIR FYI Airport.doc

5469 E. OLIVE • FRESNO, CA 93727 • (559) 456-3292 • FAX (559) 456-3194

City of Clovis

Department of Planning and Development Services
CITY HALL · 1033 FIFTH STREET · CLOVIS, CA 93612

December 7, 2009

DEC 09 PM12:07

Kevin Meikle
Airports Planning Manager
City of Fresno - Airports
4995 East Clinton Way
Fresno, California 93727-1525

Dear Mr. Meikle,

SUBJECT: Response to Notice of Availability/Completion for Draft EA / Draft EIR No 2005061150

Of the many potential impacts analyzed in the EA/EIR, of particular concern to Clovis is the potential airport and aircraft noise impacts to residents and properties in the city. The EA/EIR's analysis of this impact was thorough and its conclusion that the improvements would not result in additional significant aircraft noise impacts beyond those already analyzed in the 2006 Master Plan EA/EIR is satisfactory. N-1

If you have any questions or comments, please call Deputy City Planner David Fey at 324-2338. Also, please address all correspondence regarding this and other airport projects to Mr. Fey at the address above.

Thank you for the opportunity to review the subject EA/EIR.

Sincerely,

Dwight Kroll, AICP
Director of Planning and
Development Services

c: Kathy Millison, City Manager
Clovis City Councilmembers

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02/09/10 hk/vsa...\\S43w2k3001\TECHDRAW\28066717 Fresno Airport\Response to Comments Letters\DL0002_Clovis.indd

YOUR MOST VALUABLE RESOURCE - WATER

OFFICE OF
FRESNO IRRIGATION DISTRICT

TELEPHONE (559) 233-7161
FAX (559) 233-8227
2907 S. MAPLE AVENUE
FRESNO, CALIFORNIA 93725-2218

December 9, 2009

Mr. Kevin Meikle
Airports Planning Manager
City of Fresno Airports
4995 E. Clinton Way
Fresno, CA 93727-1525

RE: Draft EA/EIR for Improvements at the Fresno Yosemite International Airport
FID Canals: Mill No. 36, Sunnyside No. 501, and Temperance Ave. No. 37

Dear Mr. Meikle:

The Fresno Irrigation District (FID) has reviewed the City of Fresno Airport Department's Draft Environmental Assessment/Environmental Impact Report documents for improvement proposed for the Fresno Yosemite International Airport (FYI). It is FIDs understanding that the City is proposing the following improvements:

- Extend and widen secondary runway;
- Construct new and rehabilitate existing Taxiways;
- Rehabilitate existing concourse aprons;
- Relocate and rehabilitate airfield service roads;
- Reconfigure and improve parking areas;
- Acquire land and construct a new off-site 21-acre detention basin; and
- Implement storm drainage improvements.

FID conditionally approves the proposed improvements subject to the following:

1. On September 6, 2007 FID submitted extensive comments for the FYI Storm Drainage Masterplan which addressed several discharges into the Mill Canal and the proposed Mitigation Detention Basin. Those comments still apply and are attached for your reference. Please review Item 8 on page 3 which states "FID requires a 3-way Operation and Maintenance Agreement between FID, FMFCD and the City of Fresno. This proposed agreement must be executed before the additional discharges are allowed into FID's conveyance system". WQ-2

2. FID expects no impacts from the proposed runway, taxiway, apron, service road, parking area improvements.

BOARD OF DIRECTORS President JEFFREY G. BOSWELL, Vice-President JEFF NEELY
STEVE BALLS, RYAN JACOBSEN, GEORGE PORTER, General Manager GARY H. SERRATO

3. FYI Protection Area - FID's Mill No. 36 and Sunnyside No. 501 canals traverse the proposed area, east of Clovis Avenue as shown on the attached FID exhibit map. It is FIDs understanding that there are no proposed improvements in the Protection Area therefore it appears that FID will not be impacted. If any improvements are proposed within this area and in the vicinity of FID's canals, FID requires it review, approve and be made a party to signing all Plans related to the proposed improvements.

4. Mitigation Detention Basin – In addition to the comments and conditions identified in the FID letter dated September 6, 2007, FIDs comments are as follows:

A. Impacted FID Facilities and Easement –

i. FID's Temperance No. 37 Canal traverses through the middle of the proposed basin as a 30-inch diameter pipeline, in an exclusive 30-foot wide easement recorded on December 13, 1974 as Document No. 93083, Official Records of Fresno County as shown on the attached FID exhibit map.

ii. FID's Mill No. 36 Canal runs along the northerly property line of the proposed basin, although it is unclear if it actually borders it. FID's policy requires that, within the limits of the proposed project [and its remainder], the landowner/developer grant fee title for the land underlying the canal and associated area along the canal required for maintenance pursuant to Water Code Section 22425(a-f) and FID policy. FID's District Canal Right-of-Way Requirements sheet is attached for your reference. Submit the proposed grant deed, with an exhibit stamped by a registered civil engineer or land surveyor, to FID for review prior to executing the conveyance. FID requires its easement/property be shown on the final map with proper recording information. WQ-2 (Cont.)

B. Potential Improvements to FID Facilities –

i. Temperance No. 37 Canal – the pipeline is approximately 35 years old and is Cast-in-Place Concrete Pipe (CIPCP) which does not meet FID's current standards. FID will require the City to replace the existing pipe with new 30-inch ASTM C-361 Rubber Gasket Reinforced Concrete Pipe (RGRCP) in accordance with FID standards. FID assumes the City will realign the pipeline around the perimeter of the new basin. The City will need to enter into an agreement with FID for that purpose and provide FID with a new easement. The minimum width for the proposed easement is 30 feet.

ii. Mill No. 36 Canal – Typically, for any type of development that impacts a large open canal or is adjacent to one such as the Mill Canal, FID requires the Developer/Agency to improve the canal with either concrete lining, encasing the canal in a box culvert, or other approved means to protect the canal's integrity for an urban setting. FID does not have sufficient information to determine what kind of improvements will ultimately be required as part of the development. The engineers working on the project and FID's engineering staff must meet to discuss specific requirements as discussed below. Assuming the proposed basin does border the canal, FID may require the following minimum conditions:

a) Channel Stabilization: The proposed plan does not indicate any improvements to the Canal. If the Developer is not willing to concrete line the Canal or place it underground within a box culvert, they must come up with another means acceptable to and approved by FID to protect the Canal's integrity. FID recommends that the City pay close attention to the soils report and the canal's hydraulic grade line when determining the basin's side slope and distance from the canal.

b) Freeboard: FID typically requires between 1.0 to 1.5 feet of freeboard. Because the Canal is used to route stormwaters, and is one of the larger canals used to convey the stormwater, FID will require a minimum of 1.5 feet of freeboard and a maximum of 2.0 feet. The Developer/Agency will be required to either import or export material to match FID's standards.

c) Drive banks/maintenance roads (both banks):
- One or both of the drive banks must be sloped a minimum of 2% away from the canal with provisions made for rainfall.
- Drainage will not be accepted into the canal and must be routed away from FID property/drive banks.
- Runoff must be conveyed to nearby public streets or drainage system by drainage swales or other FID acceptable alternatives.
- One or both of the drive banks shall be overlaid with 3 inches of Class II aggregate base for all-weather access and for dust suppression.
- All existing trees, bushes, debris, old canal structures, pumps, canal gates, and other non- or in-active FID and private structures must be removed within FID's property/easement.

WQ-2 (Cont.)

d) Canal Access: FID will continue to access the Canal from Armstrong Avenue. In order to access the maintenance road with our larger equipment, FID requires a drive approach wide enough to accommodate the equipment. FID proposes a 50-foot wide drive approach narrowing to a 20-foo wide drive bank (See attached "Drive Approach in Urban Areas" Detail No. 62). The 50-foot width is defined as starting from the end portion of the bridge/railing outward (away from the bridge). The City has not recently supported this particular FID requirement, therefore a drive approach acceptable to all parties will need to be worked out if FID's standard is not supported by the City. Every road and canal intersection is different and therefore each access will be different. The major factors affecting the proposed width will be the angle of the road intersecting the Canal, grade of canal bank vs. City road, median vs. no median, etc.

e) Trail: Although the EA/EIR does not indicate a trail along the canal, the City's General Plan indicates a future trail along the Mill Canal. The General Plan does not specify which side of the canal the trail will be located. If the City does plan to construct a trail along the south side of the canal, FID will not allow the trail to encroach/overlap FID's canal easement. The following

requirements are intended for trail projects adjacent to FID-owned properties and right-of-ways for open canals:

- FID will not allow the trail easement to be in common use with FID-owned property or easements.
- FID requires all trail improvements be placed outside of FID-owned properties and easements.
- FID will not allow any portion of a tree canopy to encroach within its properties or easements.
- FID's canals will not accept any drainage from the trail or the canal bank.
- FID may require some improvements be made to the canal depending on the existing canal condition, the proposed trail, and the adjacent development.

5. For informational purposes, an abandoned pipeline known as the Eggers No. 105 traverses FYI as shown on the attached FID exhibit map. The City may encounter this pipeline during construction and FID requires that if any portion of the pipe is severed or damaged, a brick and mortar plug is constructed.

6. FID requires the City meet with FID at their earliest convenience to discuss specific requirements, e.g. easement width, pipeline alignment, depth and size, fees (plan review, agreement preparation, inspection, and permit), etc.

7. FID requires its review and approval of all improvement plans which affect its property/easements and canal/pipeline facilities including but not limited to Sewer, Water, Fresno Metropolitan Flood Control District (FMFCD), Street, Landscaping, Dry Utilities, and all other utilities.

8. FID requires its review and approval of all Private and Public facilities that encroach into FID's property/easement. If FID allows the encroachment, the Public or Private party will be required to enter into the appropriate agreement which will be determined by FID.

WQ-2 (Cont.)

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please contact me at 233-7161 extension 318 or by email as bstretch@fresnoirrigation.com.

Sincerely,

William R. Stretch

William R. Stretch, P.E.
Chief Engineer

Attachment
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OFFICE OF
FRESNO IRRIGATION DISTRICT
YOUR MOST VALUABLE RESOURCE - WATER
TELEPHONE (559) 233-7161
FAX (559) 233-8227
2907 S. MAPLE AVENUE
FRESNO, CALIFORNIA 93725-2218

September 6, 2007

Mr. Russell C. Widmar, AAE, Director of Aviation
City of Fresno Airports Department
4995 E. Clinton Way
Fresno, CA 93727-1525

SUBJECT: FYI Airport & FMFCD Basins "V" Discharges to Mill Canal No. 36 and FYI Mitigation Basin – Stream Group Agreement Variance

Dear Mr. Widmar:

The Fresno Irrigation District (FID) has reviewed the City of Fresno Airport's Department letter dated June 8, 2007 to update the Storm Drainage Master Plan for the Fresno Yosemite International Airport (FYI). It is FID's understanding that the City is proposing the following changes:

- Increase from 10 cfs to 15 cfs from the Peach-McKinley pump station.
- Increase from 15 cfs to 35 cfs from the Clovis-McKinley pump station.
- Increase from 5 cfs to 10 cfs from FMFCD Basin "V".
- Construct control structures in the Mill Canal to divert water to FYI Mitigation Basin.

FID conditionally approves the discharges and additional canal structures subject to the following:

1. The FYI Mitigation Basin must be operational before all increased discharges are allowed. All construction including the canal structures, controls and telemetry must also be constructed and approved by both FID and FMFCD.

2. The Peach-McKinley discharge and Clovis-McKinley discharge are both currently on-peak discharges. FID does not typically allow any "on-peak" discharges, but FID will "grandfather" the FYI discharges with the following conditions:
   - FYI must be able to reduce the flows to the current discharge amount in case of canal capacity issues or if there are issues with the FYI Mitigation Basin. For

BOARD OF DIRECTORS President JEFFREY G. BOSWELL, Vice-President JEFF NEELY
EDDIE NIEDERFRANK, STEVE BALLS, TOM E. STEFFEN, General Manager GARY R. SERRATO

example, the City would need to reduce the Clovis/McKinley discharge from the proposed flow of 35 cfs back to 15 cfs if the problems mentioned above existed.

- Does not require additional rural stream or creek flows to be discharged into Fancher Creek or Dry Creek Canal at damaging flows that would otherwise have been safely discharged to the Herndon Canal and to the San Joaquin River.
- Does not interfere with the FID's use of said canal for irrigation purposes or FID's maintenance, repair or operation of any portion of its canal system.
- Is limited to only those periods authorized in advance by FID's Water Department. FID will require a written request prior to each storm season or approximately October 1.

3. FID intends to require all future discharges into it's conveyance system to be metered (both flow rate and volume). FID requests that the City and FMFCD install and maintain a metering device for all discharges to FID canals.

4. FMFCD and the City of Fresno shall review its proposed basin operations with FID staff and submit for FID approval, a succinct basin operating plan showing pump discharge ranges, basin storage and anticipated discharge periods and any other data or factors affecting FID's flood control and other operation of its canal system. FID will not require, but recommends, that this basin be considered as a test site for a telemetry station that monitors water levels and flow rates and operates pumps based on basin and canal capacities, while providing real time data to FID and FMFCD SCADA systems.

5. The approved discharges shall be designed and constructed in accordance with plans and schedules approved by FID.

6. FID recommends the City reconsider the singular use of the basin and allow water to be diverted during the non-storm season for groundwater recharge purposes.

7. FMFCD and FYI shall not discharge into FID's facilities any water that in FID's sole opinion is unacceptable, including without limitation, water that is not of a quality suitable for all agricultural use, or which may be deleterious to plant or animal life. Further, all discharged water shall meet the quality standards of the California Regional Water Quality Control Board, or its successor agency, for agricultural and irrigation use, and shall meet the standards of any other federal, state or local agency having jurisdiction and control over water quality standards. FMFCD agrees, at its expense, to conduct tests to determine the quality of the water discharged into FID's canals at the point where said water is so discharged as such tests may be required by any such board agency or by FID, and FMFCD agrees to immediately submit the written results of such tests to FID. FMFCD further agrees that any complaint that the discharged water does not meet the above standards, including but not limited to complaints from any such board or agency,

the County of Fresno, any public agency or municipality, any mosquito abatement district, or any user of such discharge water or irrigation water, must be corrected and resolved to FID's satisfaction before FID will permit FMFCD to further discharge any water into FID's facilities.

8. FID requires a 3-way Operation and Maintenance Agreement between FID, FMFCD and the City of Fresno to be executed before the additional discharges are allowed into FID's conveyance system. The agreement must include the following:
   a) Items #1-7 as listed above.
   b) FYI Mitigation Basin –
      i. Who owns, operate and maintains the automated gate valves and Mill Canal control structure including the telemetry. Staff assumes that it will be operated under FID at the City's expense.
      ii. Who owns, operate and maintains the pump, standpipes and piping infrastructure within the basin? Staff assumes that FMFCD will at the City's expense, but will need to coordinate with FID for all discharges. FID will treat as an "off-peak" discharge.
      iii. Who maintains the basin? Staff assumes that FMFCD will at the City's expense.

Please feel free to contact me with any questions or concerns at 233-7161 extension 318.

Sincerely,

FRESNO IRRIGATION DISTRICT

Bill Stretch

Bill Stretch, P.E.
Chief Engineer

Cc: Mike Kirn, City of Fresno City Engineer
Steve White, City of Clovis City Engineer
Jerry Lakeman, FMFCD District Engineer
Dan Gibbs, Fresno County Public Works and Planning
Cordie Qualle, Blair, Church & Flynn
Ron Duarte, FYI Project Manager
Frank Fowler, P.E., Deputy Director of Public Works
Gary Serrato, FID General Manager
Laurence Kimura, FID Assistant General Manager
Jim Irwin, FID Water Master

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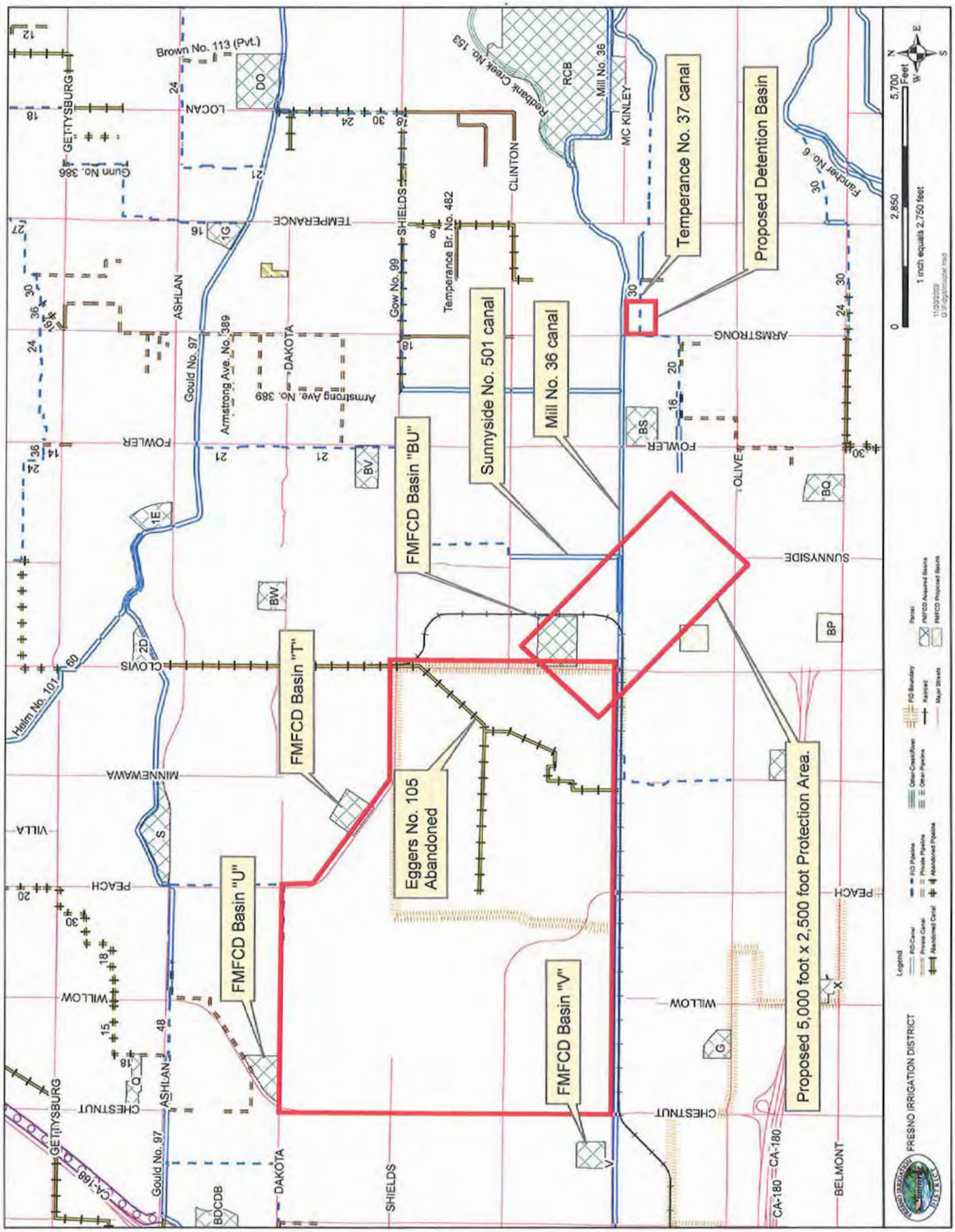

Temperance No. 37 canal
Proposed Detention Basin
Sunnyside No. 501 canal
Mill No. 36 canal
FMFCD Basin "BU"
FMFCD Basin "T"
FMFCD Basin "U"
FMFCD Basin "V"
Eggers No. 105 Abandoned
Proposed 5,000 foot x 2,500 foot Protection Area.
Brown No. 113 (Pvt.)
Gunn No. 386
Gould No. 97
Armstrong Ave. No. 389
Gow No. 99
Temperance Br. No. 482
Redbank Creek No. 153
Mill No. 36
Panther No. 6
Helm No. 101
GETTYSBURG
LOCAN
TEMPERANCE
ASHLAN
DAKOTA
SHIELDS
CLINTON
MC KINLEY
ARMSTRONG
FOWLER
OLIVE
SUNNYSIDE
CLOVIS
MINNEWAWA
VILLA
PEACH
WILLOW
CHESTNUT
BELMONT
CA-180
CA-168
FRESNO IRRIGATION DISTRICT
Legend
1 inch equals 2,750 feet

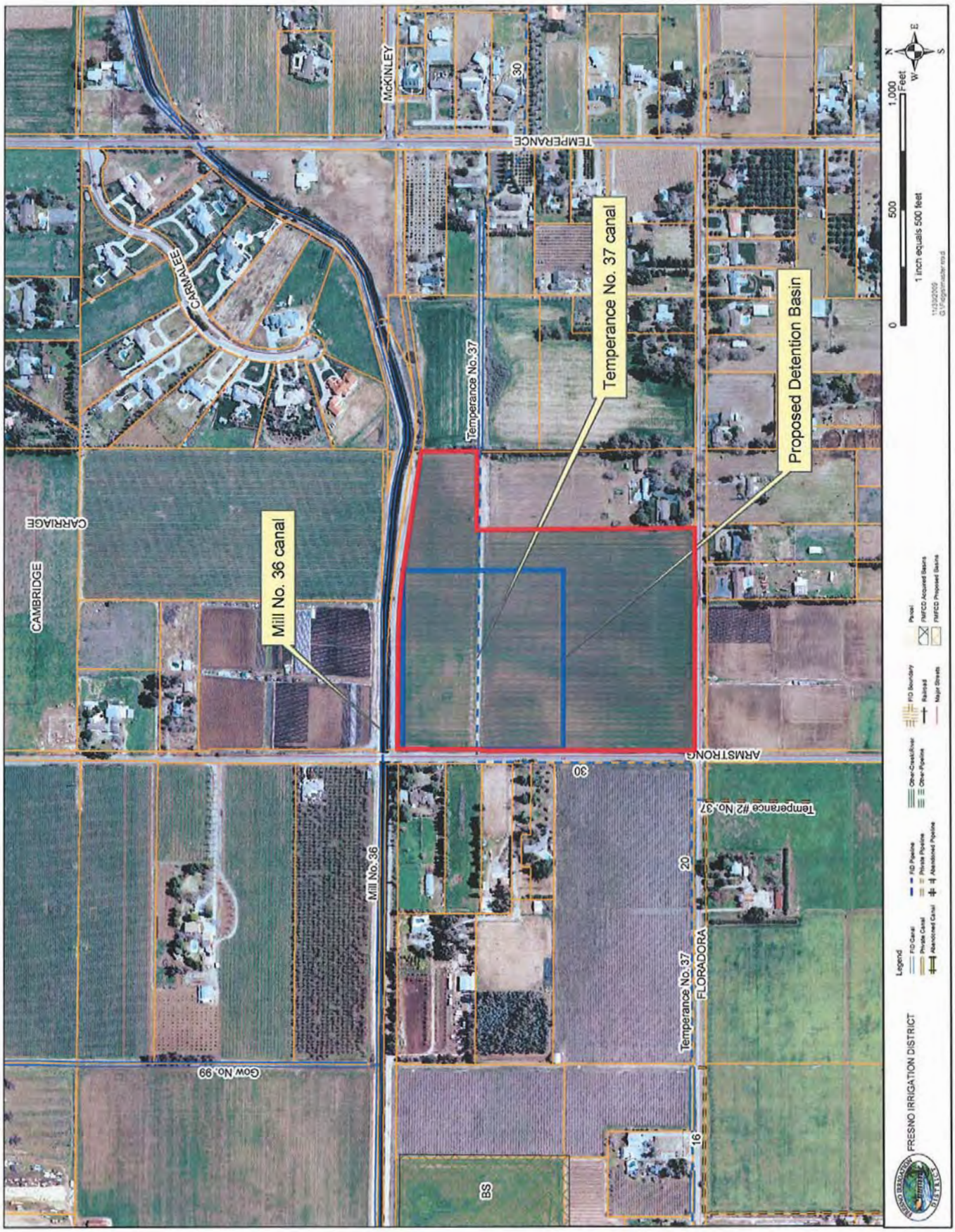
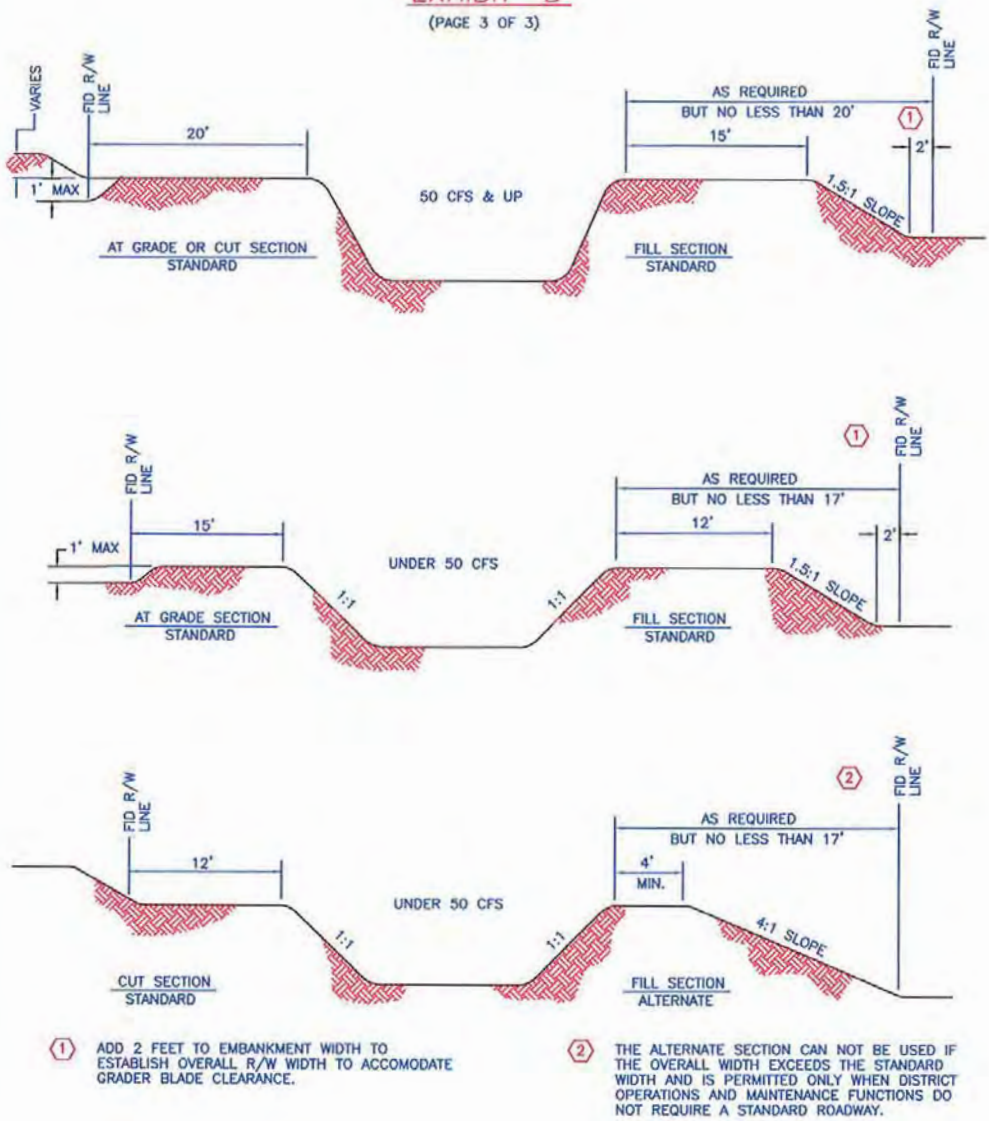

McKINLEY
30
TEMPERANCE
CAMALEE
Temperance No. 37
Temperance No. 37 canal
Proposed Detention Basin
CARRIAGE
CAMBRIDGE
Mill No. 36 canal
ARMSTRONG
30
Temperance #2 No. 37
Mill No. 36
20
Temperance No. 37
FLORADORA
Gov No. 99
16
BS
0
500
1,000
Feet
1 inch equals 500 feet
N
E
S
W
Legend
FID Canal
Private Canal
Abandoned Canal
FID Pipeline
Private Pipeline
Abandoned Pipeline
Other-Creek/River
Other-Pipeline
FID Boundary
Railroad
Major Streets
Parcel
FMFCD Acquired Basins
FMFCD Proposed Basins
FRESNO IRRIGATION DISTRICT

EXHIBIT "B"

(PAGE 3 OF 3)



(1) ADD 2 FEET TO EMBANKMENT WIDTH TO ESTABLISH OVERALL R/W WIDTH TO ACCOMODATE GRADER BLADE CLEARANCE.

(2) THE ALTERNATE SECTION CAN NOT BE USED IF THE OVERALL WIDTH EXCEEDS THE STANDARD WIDTH AND IS PERMITTED ONLY WHEN DISTRICT OPERATIONS AND MAINTENANCE FUNCTIONS DO NOT REQUIRE A STANDARD ROADWAY.

DISTRICT CANAL RIGHT OF WAY REQUIREMENTS

NOTES:

(1) DIMENSIONS AND NOTES ARE FOR LAYOUT PURPOSES ONLY. A SCALED DRAWING SHALL BE PREPARED AND SUBMITTED WITH ALL PLAN SETS PRIOR TO CONSTRUCTION.

(2) IF CULVERT/BRIDGE STRUCTURE CAN COLLECT TRASH ON ITS PIERS, DEVELOPER MUST PROVIDE A SAFE ACCESS TO TRASH PIER RIDER. GALVANIZED STEEL OR CONCRETE CATWALK WITH CHAIN-LINK BARRIER MAY NEED TO BE INCORPORATED INTO CULVERT DESIGN (ON THE UPSTREAM SIDE OF THE BRIDGE/CULVERT STRUCTURE).

(3) DRAINAGE WILL NOT BE ACCEPTED IN THE CANAL AND SHALL BE ROUTED AWAY FROM FID PROPERTY/DRIVE BANKS. SLOPE DRIVE BANKS MINIMUM OF 2% AWAY FROM THE CANAL WITH PROVISIONS MADE FOR RAINFALL. RUNOFF TO BE CONVEYED TO NEARBY PUBLIC STREETS OR DRAINAGE SYSTEM BY DRAINAGE SWALES OR OTHER FID ACCEPTABLE ALTERNATIVES.

(4) WITHIN FID EASEMENT/RIGHT-OF-WAY AREA, ALL EXISTING TREES, BUSHES, DEBRIS, OLD CANAL STRUCTURES, PUMPS, CANAL GATES, AND OTHER NON OR IN-ACTIVE FID AND PRIVATE STRUCTURES MUST BE REMOVED.

(5) RAISED BANKS-1.0 TO 1.5 FEET OF FREEBOARD IS REQUIRED.

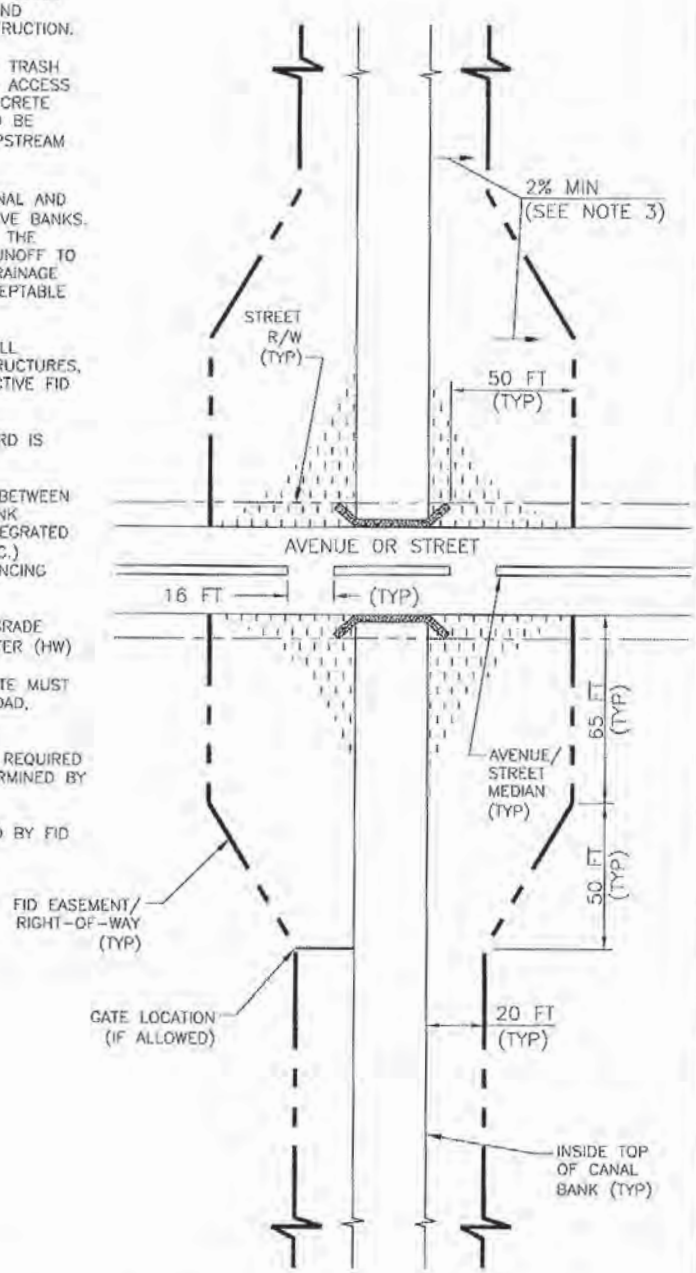
(6) BLOCK/MASONRY WALL SHALL BE REQUIRED BETWEEN THE OPEN CANALS AND DEVELOPMENT. CHAIN-LINK FENCING IS AN ACCEPTABLE ALTERNATIVE WITH INTEGRATED VISUAL BARRIERS (SLATS, SCREENS, SHEETING, ETC.) APPROVED ON A CASE-BY-CASE BASIS. WOOD FENCING WILL NO LONGER BE ACCEPTED.

(7) LINE CANAL BANKS OR RAISE SURROUNDING GRADE ELEVATIONS TWELVE (12) INCHES ABOVE HIGH-WATER (HW)

(8) IF AN ACCESS GATE IS PERMITTED BY FID, GATE MUST BE PLACED A MINIMUM OF 115 FT AWAY FROM ROAD, WHERE DRIVEBANK NARROWS TO 20 FT.

(9) THREE (3) INCH THICK GRAVEL BASE MAY BE REQUIRED AT THE ENTRANCE TO EACH DRIVE BANK AS DETERMINED BY FID ENGINEER.

(10) DRIVEWAY APPROACH WIDTH TO BE APPROVED BY FID ENGINEER.



DRIVE APPROACH IN URBAN AREAS

NOT TO SCALE

APPENDIX B
NOISE

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

NOISE

1.0 AFFECTED ENVIRONMENT

1.1 STUDY METHODS

1.1.1 Aircraft Noise Descriptors

A variety of noise metrics are used to assess airport noise impacts in different ways. Noise metrics are used to describe individual noise events. A "noise event" is the measured sound produced by a single source of noise over a particular period of time. An aircraft noise event begins when the sound level of an overflight exceeds a noise threshold, normally the background or ambient level, and ends when the level drops down below that threshold. Other noise metrics describe groups of events, such as the cumulative effect of numerous aircraft operations, or the collection of all events over a longer period that creates a general noise environment or overall exposure level. Using a variety of metrics helps explain how people tend to respond to a given noise condition. Typically, noise levels and metrics are expressed in A-weighted decibels (dB). An overview of the single-event and cumulative noise metrics used in this EA/EIR is provided in the following paragraphs.

Sound Exposure Level – The most common single-event metric used to describe aircraft noise exposure is the Sound Exposure Level (SEL), which accounts for both the magnitude and frequency content (pitch) of a noise event, as well as its duration. The Single Event Noise Exposure Level (SENEL) is the metric used in California to describe a single noise event. SENEL has the same properties as SEL.

Community Noise Equivalent – The cumulative noise metric used to describe FAT's noise environment is the Community Noise Equivalent Level (CNEL). This metric was first developed by the California Department of Transportation-Division of Aeronautics and is now incorporated in state law (California Administrative Code Title 25, Art. 4, Sec. 1092). The CNEL represents noise as it occurs over a 24-hour period, and is similar to a 24-hour equivalent sound level (L_{eq24}). The equivalent sound level is the logarithm of the average value of the sound exposure during a stated time period. It is often used to describe sounds with respect to their potential for interfering with human activity. However, CNEL treats evening and nighttime noise differently from daytime noise. The CNEL takes into account the fact that evening noises annoy people more than daytime noises, and nighttime noises are considered by most people to be more disturbing than daytime or evening noises. The CNEL is a 24-hour A-weighted equivalent sound level with a 4.77 dB penalty applied to sound levels between 7:00 p.m. and 10:00 p.m. and a 10 dB penalty applied to sound levels between 10:00 p.m. and 7:00 a.m.

Values of CNEL can be measured with standard monitoring equipment or predicted with computer models. Most aircraft noise studies utilize computer-generated estimates of CNEL, determined by accounting for all of the SELs from individual events, which comprise the total noise level at a given location on the ground. Specific point analyses provide a basis for comparing noise levels at different sites.

1.1.2 Methodology

The evaluation of the FAT noise environment was conducted using the methodologies developed by the Federal Aviation Administration (FAA) and published in FAA Order 5050.4B and FAA Order 1050.1E. For aviation noise analysis, the FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of yearly day/night average sound level (DNL) as FAA's primary metric. California law mandates the use of CNEL (California Code of Regulations [CCR], Title 21, Division 2.5, Chapter 6, Section 5006), and the FAA recognizes CNEL as an alternative metric for California (FAA Order 1050.1E, Section 14.1).

For the purposes of federal regulations, all land uses are considered compatible with noise levels of less than DNL 65 dB (14 CFR Part 150, Appendix A, Table 1). California law establishes the CNEL 65 dB as the level of noise acceptable to a reasonable person residing in the vicinity of an airport (CCR, Title 21, Division 2.5, Chapter 6, Section 5006).

The Integrated Noise Model, (INM) Version 6.2a, was used to generate noise contours and to analyze noise levels at sensitive sites for this EA/EIR. FAA developed the Integrated Noise Model (INM) as the primary tool for analyzing and evaluating noise impacts from aircraft operations at airports. Its use is prescribed for all FAA-sponsored airport projects requiring environmental evaluation. INM has an extensive internal database of aircraft noise and performance information. INM uses this information, as well as the number of annual average daily daytime, evening and nighttime flight events, flight paths, and profiles of the aircraft to calculate the CNEL at many points on the ground in the vicinity of an airport. From a grid of points, the INM contouring program draws contours of equal CNEL to be superimposed onto land use maps. For this EA/EIR, CNEL contours of 60, 65, 70, and 75 dB were developed. CNEL contours are a graphical representation of how the noise from the annual average daily aircraft operations at FAT is distributed over the surrounding area. INM can calculate sound levels at any specified point so that noise exposure at representative locations around an airport can be obtained.

The results of the INM analysis provide a relative measure of noise level around airfield facilities. When the calculations are made in a consistent manner, INM is most accurate for comparing before and after noise effects resulting from forecast changes or alternative actions. It allows noise predictions for proposed projects without the actual implementation of those actions. Information required to run the computer model includes:

- A physical description of the airport layout;
- Airport elevation and average annual temperature;
- Aircraft fleet mix for the average annual day;
- The number of daytime flight operations (7:00 am through 6:59 pm);
- The number of evening flight operations (7:00 pm through 9:59 pm);
- The number of nighttime flight operations (10:00 pm through 6:59 am);
- Runway utilization rates;
- Primary departure, arrival, and pattern flight tracks; and
- Flight track utilization rates.

1.2 EXISTING ENVIRONMENTAL CONDITIONS

The number of aircraft operations used to model the 2004 existing condition was obtained from the FAA Terminal Area Forecast (TAF), since it was the relevant historical data available at that time. Airport layout, runway use, flight tracks, flight track use, and flight profiles, were obtained from the *Fresno Yosemite International Airport Part 150 Update Study (Noise Exposure Map, September 2004 and Noise Compatibility Program, November 2005)* for use in this EA/EIR. On July 6, 2005 (70 FR 50437–50438), the FAA determined that the noise exposure maps submitted by the City of Fresno were in compliance with applicable requirements under 14 CFR part 150. On July 28, 2008, the FAA issued a Record of Approval for the FAT Noise Compatibility Program.

1.2.1 Physical Description

FAT has two parallel runways and one helipad. The details of the existing runway configuration are shown in **Table 1.2-1**. Please note Runway 11L/29R is the primary runway at FAT, while Runway 11R/29L is the secondary.

Table 1.2-1: Existing Runway Configuration

Runway	Latitude	Longitude	Length (feet)	Displaced Threshold (feet)	Width (feet)	Elevation (feet)
11R	36° 46’ 55.0164” N	-119° 43’ 49.6956” W	7,206	1,448	100	328.6
29L	36° 46’ 13.7856” N	-119° 42’ 37.476” W	7,206	No	100	329.8
11L	36° 47’ 0.5640” N	-119° 43’ 45.066” W	9,227	No	150	335.8
29R	36° 46’ 7.8168” N	-119° 42’ 12.6828” W	9,227	312	150	332.9
Helipad	36° 46’ 20.82” N	-119° 43’ 11.51” W	70	NA	70	336.0

Note: NA – Not Applicable

Source: FAT, 2006; airnav.com, 2007

1.2.2 Aircraft Operations and Fleet Mix

As shown in **Table 1.2-2**, annual operations for the existing condition totaled 163,971. Jet operations accounted for approximately 36 percent of the total aircraft operations, with the remaining 64 percent consisting of piston, turboprop, and helicopter operations. Daytime operations comprised approximately 82 percent of the total operations, with approximately 13 percent evening operations, and 5 percent nighttime operations. The number of operations modeled in this EA/EIR for the 2004 existing condition was approximately 900 operations higher than the operations modeled in the Part 150 Study. The operations count used for the EA/EIR was obtained from the 2006 FAA Terminal Area Forecast. An increase of this magnitude had no noticeable effect on the aircraft noise contours for FAT. **Tables 1.2-3** through **1.2-8** list the average daily arrival, departure, pattern and helicopter operations by representative INM aircraft type for commuter/air taxi, air carrier (including cargo), general aviation, and military groups.

Table 1.2-2: 2004 Modeled Annual Operations

Aircraft Category	Itinerant	Local	Total
Air Carrier	8,575	0	8,575
Commuter/Air Taxi	41,894	0	41,894
General Aviation	83,186	19,918	103,104
Military	9,518	880	10,398
TOTAL	143,173	20,798	163,971

Source: FAA TAF, February 2006

Table 1.2-3: 2004 Average Day Commuter/Air Taxi Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
BEC58P	P	3.614	0.904	---	3.614	0.904	---	9.036
CL601	J	13.657	5.544	1.385	15.043	---	5.543	41.172
DHC6	P	2.409	0.603	---	2.409	0.603	---	6.024
DHC8	T	0.698	0.305	0.131	0.850	0.131	0.153	2.268
EMB120	T	10.683	3.606	0.936	11.455	1.956	1.814	30.450
GASEPF	P	1.204	0.301	---	1.204	0.301	---	3.010
SD330	T	1.202	---	---	1.202	---	---	2.404
SF340	T	6.282	2.749	1.175	7.656	1.175	1.375	20.412
TOTAL		39.750	14.012	3.627	43.435	5.069	8.885	114.776

Notes:

AC - Aircraft Body

J – Jet
P – Prop
T – Turboprop

Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1
Some values may not add, due to rounding.

Source: FAT, 2006

Table 1.2-4: 2004 Average Day Air Carrier Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures												Total
					Stage Length 1			Stage Length 2			Stage Length 3			Stage Length 4			
		Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	
74720B	WB	---	---	0.039	---	---	---	---	---	---	---	---	---	---	---	0.039	0.078
757PW	NB	0.149	---	0.597	---	---	---	---	---	---	---	---	---	0.747	---	---	1.494
767CF6	WB	1.942	0.597	---	---	---	1.046	---	---	0.448	---	---	---	1.046	---	---	5.079
A310	WB	0.547	---	---	---	---	---	0.547	---	---	---	---	---	---	---	---	1.095
CL601	NB	2.947	0.883	---	2.947	---	0.883	---	---	---	---	---	---	---	---	---	7.660
DC9Q7	NB	---	0.547	0.547	---	---	0.547	---	---	0.547	---	---	---	---	---	---	2.188
MD82	NB	0.764	---	0.764	---	---	---	---	---	---	---	0.764	---	0.764	---	---	3.056
MD83	NB	1.151	---	0.268	---	0.883	---	---	---	---	0.268	---	0.268	---	---	---	3.419
TOTAL		7.502	2.027	2.217	2.947	0.883	2.476	0.547	---	0.995	0.268	0.764	0.268	2.557	---	0.039	24.069

Notes:

AC = Aircraft Body
NB = Narrowbody
WB =Widebody
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Some values may not add, due to rounding.

Source: FAT, 2006

Table 1.2-5: 2004 Average Day General Aviation Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
BEC58P	P	5.053	0.588	0.037	5.053	0.588	0.037	11.355
CIT3	J	0.306	0.055	0.003	0.306	0.055	0.003	0.728
CNA172	P	2.522	0.132	---	2.522	0.132	---	5.309
CNA206	P	36.392	6.180	0.403	36.392	6.180	0.403	85.951
CNA441	P	3.027	0.531	0.043	3.027	0.531	0.043	7.201
CNA750	J	0.376	0.067	0.004	0.376	0.067	0.004	0.895
DC3	P	0.055	---	---	0.055	---	---	0.110
DC6	P	0.055	---	---	0.055	---	---	0.110
DHC6	P	2.509	0.448	0.030	2.509	0.448	0.030	5.974
FAL50**	J	0.376	0.067	0.004	0.376	0.067	0.004	0.895
GASEPF	P	19.911	---	---	19.911	---	---	39.822
GASEPV	P	3.763	0.672	0.045	3.763	0.672	0.045	8.961
GV	J	6.899	1.232	0.082	6.899	1.232	0.082	16.427
IA1125	J	6.899	1.232	0.082	6.899	1.232	0.082	16.427
LEAR25	J	7.275	1.299	0.087	7.275	1.299	0.087	17.323
LEAR35	J	1.599	0.285	0.019	1.599	0.285	0.019	3.806
MU3001	J	0.376	0.067	0.004	0.376	0.067	0.004	0.895
OV10A	T	0.073	---	---	0.073	---	---	0.146
TOTAL		97.466	12.857	0.842	97.466	12.857	0.842	222.330

Notes:
** FAL50 is a user created profile
J – Jet
P – Prop
T – Turboprop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1

Some values may not add, due to rounding.

Source: FAT, 2006

Table 1.2-6: 2004 Average Day Military Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
F16PW9	J	1.758	---	---	1.758	---	---	3.516
F-18	J	11.861	0.625	---	11.861	0.625	---	24.972
TOTAL		13.619	0.625	---	13.619	0.625	---	28.488

Notes:
J – Jet
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1

Source: FAT, 2006

Table 1.2-7: 2004 Average Day Helicopter Overflight Operations

INM Aircraft	AC Body	Day	Eve	Night	Total
A109	H	1.310	0.437	0.437	2.183
B206L	H	0.044	0.015	0.015	0.074
B212	H	1.946	0.649	0.649	3.245
SA335F	H	0.044	0.015	0.015	0.074
TOTAL		3.344	1.116	1.116	5.576

Notes:
H – Helicopter
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Some values may not add, due to rounding.

Source: FAT, 2006

Table 1.2-8: 2004 Average Day General Aviation Touch-and-Go Operations

INM Aircraft	AC Body	Day	Eve	Night	Total
BEC58P	P	1.186	0.063	---	1.249
CNA172	P	37.675	1.983	---	39.659
CNA206	P	1.186	0.063	---	1.249
DHC6	P	1.186	0.063	---	1.249
GASEPF	P	9.914	---	---	9.914
GASEPV	P	1.186	0.063	---	1.249
TOTAL		52.333	0.063	0	54.569

Notes:
P – Prop
H – Helicopter
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Some values may not add, due to rounding.

Source: FAT, 2006

1.2.3 Runway Utilization

Runway utilization rates were obtained from the *Fresno Yosemite International Airport Part 150 Update Study (Noise Exposure Map, September 2004 and Noise Compatibility Program, November 2005)*. **Table 1.2-9** provides the runway utilization used for the air carriers, commuter, general aviation, and military aircraft operations by aircraft category and time of day. Local general aviation operations use Runway 29L 92 percent of the time and Runway 11R 8 percent of the time, regardless of the time of day. Approximately 41 percent of the helicopter overflight operations use Runway 11L/29R (primary runway), while 58 percent of the helicopter overflight operations use Runway 11R/29L (secondary runway).

Table 1.2-9: Runway Utilization

Aircraft Category	Runway	Arrival Utilization			Departure Utilization		
		Day	Eve	Night	Day	Eve	Night
Wide Body Air Carrier[1]	11L	7.5%	7.5%	7.5%	7.5%	---	50%
	11R	---	---	---	---	---	---
	29L	---	---	---	---	---	---
	29R	92.5%	92.5%	92.5%	92.5%	---	50%
Narrow Body Air Carrier	11L	7.5%	7.5%	7.5%	7.5%	7.5%	29.9%
	11R	---	---	---	---	---	---
	29L	---	---	---	---	---	---
	29R	92.5%	92.5%	92.5%	92.5%	92.5%	70.1%
Commuter	11L	6.0%	6.8%	7.0%	4.7%	4.7%	4.7%
	11R	1.5%	0.9%	0.5%	2.8%	2.8%	2.8%
	29L	17.8%	10.9%	6.2%	34.5%	34.5%	34.5%
	29R	74.7%	81.6%	86.4%	58%	58%	58%
Itinerant General Aviation Piston	11L	0.1%	0.2%	---	0.1%	0.2%	---
	11R	7.4%	7.3%	7.5%	7.4%	7.3%	7.5%
	29L	91.2%	90.1%	92.5%	91.2%	90.1%	92.5%
	29R	1.3%	2.4%	---	1.3%	2.4%	---
Itinerant General Aviation Jet/Turboprop	11L	7.5%	7.5%	7.6%	7.5%	7.5%	7.4%
	11R	---	---	---	---	---	---
	29L	---	---	---	---	---	---
	29R	92.5%	92.5%	92.4%	92.5%	92.5%	92.6%
Military	11L	6.0%	7.5%	7.5%	7.5%	7.5%	7.5%
	11R	---	---	---	---	---	---
	29L	---	---	---	---	---	---
	29R	94.0%	92.5%	92.5%	92.5%	92.5%	92.5%

Notes: [1] There are no evening wide body air carrier departures.
Source: HMMH, 2005

1.2.4 Flight Tracks and Utilization

Flight tracks and utilization rates were obtained from the *Fresno Yosemite International Airport Part 150 Update Study (Noise Exposure Map, September 2004 and Noise Compatibility Program, November 2005)*.

Figures 1.2-1 through **1.2-3** depict the departure, arrival, and pattern/helicopter flight tracks. **Tables 1.2-10** through **1.2-13** provide detailed arrival and departure flight track utilization by aircraft time of day and category. Local general aviation operations use pattern track 29LTGO 92 percent of the time and pattern track 11RTGO 8 percent of the time, regardless of the time of day. Approximately 41 percent of the helicopter overflight operations use overflight track Helo1, while 58 percent of the helicopter overflight operations use track Helo3.

Default INM aircraft arrival, departure, and pattern operational procedures are used in this EA/EIR analysis, with the exception of helicopter overflights and military departures. The helicopter overflight procedures are based on the example profiles provided in the Helicopter Noise Model Manual, distributed with INM. The military departure procedures were developed in conjunction with the programs developed under the Part 150 Study and currently being followed at FAT.

Table 1.2-10: Air Carrier Arrival/Departure Flight Track Utilization

Aircraft Category	Runway	Flight Track	Day	Evening	Night
Arrival Operations					
Narrow Body	11L	11LA1	100%	---	74%
		11LA2	---	50%	13%
		11LA4	---	50%	13%
	29R	29RA1	100%	---	74%
		29RA2	---	50%	13%
		29RA3	---	50%	13%
Wide Body	11L	11LA1	78%	100%	100%
		11LA4	22%	---	---
	29R	29RA1	78%	100%	100%
		29RA3	22%	---	---
Departure Operations					
Narrow Body	11L	11LD1	43.5%	---	---
		11LD2	---	---	44%
		11LD5	56.5%	100%	56%
	29R	29RD1	43.5%	---	---
		29RD4	56.5%	100%	81%
		29RD5	---	---	19%
Wide Body	11L	11LD1	66%	---	100%
		11LD3	34%	---	---
	29R	29RD1	66%	---	100%
		29RD3	34%	---	---

Source: HMMH, 2005

Table 1.2-11: Air Taxi/Commuter Aircraft Arrival/Departure Track Utilization

Aircraft Category	Runway	Flight Track	Day	Evening	Night
Arrival Operations					
Air Taxi /Commuter	11L	11LA1	23.8%	25.6%	25.0%
		11LA2	48.6%	51.4%	62.7%
		11LA3	3.3%	3.0%	3.0%
		11LA4	22.2%	19.0%	9.4%
		11LA5	2.1%	1.0%	---
	11R	11RA1	32.9%	31.1%	22.2%
		11RA2	67.1%	68.9%	77.8%
	29L	29LA1	67.1%	68.8%	77.2%
		29LA2	19.0%	16.1%	7.7%
		29LA3	13.9%	15.1%	15.1%
	29R	29RA1	23.8%	25.6%	24.9%
		29RA2	46.4%	49.0%	62.8%
		29RA3	22.2%	19.0%	9.4%
		29RA4	7.7%	6.4%	3.0%
Departure Operations					
Air Taxi /Commuter	11L	11LD1	30.9%	---	37.7%
		11LD2	41.1%	56.2%	39.8%
		11LD3	22.8%	21.3%	21.2%
		11LD5	2.4%	10.4%	1.2%
		11LD6	2.8%	12.1%	---
	11R	11RD1	63.8%	62.5%	87.1%
		11RD2	36.2%	37.5%	12.9%
	29L	29LD1	36.1%	37.5%	13.0%
		29LD2	9.0%	9.8%	1.0%
		29LD3	54.9%	52.7%	86.0%
	29R	29RD1	33.4%	10.4%	39.0%
		29RD2	0.3%	1.4%	---
		29RD3	11.7%	33.6%	7.4%
		29RD5	40.7%	54.6%	39.8%
		29RD7	13.9%	---	13.7%

Source: HMMH, 2005

Table 1.2-12: General Aviation Aircraft Arrival/Departure Track Utilization

Aircraft Category	Runway	Flight Track	Day	Evening	Night
Arrival Operations					
GA Prop	11L	11LA4	18.5%	20.0%	---
		11LA5	81.5%	80.0%	---
	11R	11RA1	6.4%	8.3%	7.3%
		11RA2	93.6%	91.7%	92.7%
	29L	29LA1	65.9%	66.3%	64.4%
		29LA2	33.1%	31.5%	35.6%
		29LA3	1.1%	2.2%	---
	29R	29RA2	74.5%	80.0%	---
		29RA3	18.6%	20.0%	---
		29RA4	6.9%	---	---
GA Jet	11L	11LA1	100.0%	100.0%	100.0%
	29R	29RA1	50.0%	50.0%	50.0%
		29RA2	50.0%	50.0%	50.0%
Departure Operations					
GA Prop	11L	11LD2	9.4%	10.0%	---
		11LD5	7.0%	---	---
		11LD6	83.6%	90.0%	---
	11R	11RD1	5.9%	7.2%	7.3%
		11RD2	94.1%	92.8%	92.7%
	29L	29LD1	66.4%	67.4%	64.4%
		29LD2	33.1%	31.5%	35.6%
		29LD3	0.5%	1.1%	---
	29R	29RD2	9.3%	10.0%	---
		29RD3	83.8%	90.0%	---
		29RD4	6.9%	---	---
GA Jet	11L	11LD2	20.0%	20.2%	21.8%
		11LD3	40.0%	39.9%	39.1%
		11LD4	40.0%	39.9%	39.1%
	29R	29RD3	40.0%	40.0%	39.9%
		29RD4	30.0%	30.0%	30.1%
		29RD5	30.0%	30.0%	30.1%

Source: HMMH, 2005.

Table 1.2-13: Military Aircraft Arrival/Departure Track Utilization

Aircraft Category	Runway	Flight Track	Day	Evening	Night
Arrival Operations					
Military	11L	11LA3	99.2%	100.0%	---
		11LA5	0.8%	---	---
	29R	29RA4	78.3%	100.0%	---
		29RA5	21.7%	---	---
Departure Operations					
Military	11L	11LD5	0.8%	---	---
		11LD7	99.2%	100%	---
	29R	29RD4	0.8%	---	---
		29RD8	99.2%	100%	---

Source: HMMH, 2005.

1.2.5 CNEL Noise Exposure

1.2.5.1 CNEL Contours

The 2004 existing condition aircraft noise contours were superimposed over the land use base map, as shown in **Figure 1.2-4**, and land use, housing and population estimates associated with these contours were estimated using GIS. Noise exposure levels of CNEL 60, 65, 70, and 75 dB for the 2004 existing condition are depicted as contours in **Figure 1.2-4.** CNEL contours are a graphical representation of how the noise from aircraft operations at FAT is distributed over the surrounding area on an average day of a given year.

1.2.5.2 Land Use Compatibility

FAA has adopted guidelines regarding the compatibility of land uses with various noise levels measured using the CNEL metric, and these guidelines are listed in **Table 1.2-14**. The development of these guidelines was intended to establish a consistent process for estimating noise compatibility and for considering federal funding for noise compatibility program implementation. These guidelines also aid local jurisdictions that do not have established land use guidelines with respect to airports and surrounding lands. Title 14 CFR Part 150 land use compatibility guidelines are consistent with land use compatibility guidelines developed by other Federal agencies, such as the U.S. Environmental Protection Agency and the U.S. Department of Housing and Urban Development.

Table 1.2-14: Land Use Compatibility with Yearly Day-Night Average Sound Levels

Land Use	Yearly Day-Night Average Sound Level (DNL)					
	Below 65 Decibels	65-70 Decibels	70-75 Decibels	75-80 Decibels	80-85 Decibels	Over 85 Decibels
Residential						
Residential (other than mobile homes and transient lodges)	Y	N[1]	N[1]	N	N	N
Mobile Home Parks	Y	N	N	N	N	N
Transient Lodging	Y	N[1]	N[1]	N[1]	N	N
Public Use						
Schools	Y	N[1]	N[1]	N	N	N
Hospitals, Nursing Homes	Y	25	30	N	N	N
Churches, Auditoriums, Concert Halls	Y	25	30	N	N	N
Governmental Services	Y	Y	25	30	N	N
Transportation	Y	Y	Y[2]	Y[3]	Y[4]	Y[4]
Parking	Y	Y	Y[2]	Y[3]	Y[4]	N
Commercial Use						
Offices, Business and Professional	Y	Y	25	30	N	N
Wholesale and Retail Building Materials, Hardware and Farm Equipment	Y	Y	Y[2]	Y[3]	Y[4]	N
Retail Trade – General	Y	Y	25	30	N	N
Utilities	Y	Y	Y[2]	Y[3]	Y[4]	N
Communications	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, General	Y	Y	Y[2]	Y[3]	Y[4]	N
Photographic and Optical	Y	Y	25	30	N	N
Agriculture (Except Livestock) and Forestry	Y	Y[6]	Y[7]	Y[8]	Y[8]	Y[8]
Livestock Farming and Breeding	Y	Y[6]	Y[7]	N	N	N
Mining and Fishing, Resource Production and Extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor Sports Arenas, Spectator Sports	Y	Y[5]	Y[5]	N	N	N
Outdoor Music Shells, Amphitheaters	Y	N	N	N	N	N
Nature Exhibits and Zoos	Y	Y	N	N	N	N
Amusement, Parks, Resorts, Camps	Y	Y	Y	N	N	N
Golf Courses, Riding Stables, Water Recreation	Y	Y	25	30	N	N

Notes: The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties remains with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land use for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise-compatible land uses.

SLUCM Standard Land Use Coding Manual
Y (Yes) Land Use and related structures are compatible without restrictions
N (No) Land Use and related structures are not compatible and should be prohibited
NLR Noise Level Reduction (outdoor to indoor) are to be achieved through incorporation of noise attenuation into the design and construction of structure
25, 30, 35 Land use and related structures are generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated in design and construction of structure

1. Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems
2. Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of the buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low
3. Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of the buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low
4. Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of the buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low
5. Land use compatible provided special sound reinforcement systems are installed
6. Residential buildings require an NLR of 25 dB
7. Residential buildings require an NLR of 30 dB
8. Residential buildings not permitted

Source: 14 CFR Part 150, Appendix A, Table 1 (January 1, 1998)

It should be noted that the Title 14 CFR Part 150 land use compatibility guidelines, shown in **Table 1.2-14** of this EA/EIR do not constitute a federal determination that a specific land use is acceptable or unacceptable under federal, state, or local laws. The responsibility for determining acceptable land uses rests with the local authorities through their zoning laws and ordinances.

Land uses within the 2004 CNEL 65 dB aircraft noise contour include noise-sensitive land uses such as residences, schools, and churches. **Table 1.2-15** shows acreages of land use within the CNEL 65, 70, and 75 dB contours. It was determined through GIS analysis that there are 2,650.5 acres within the CNEL 65 dB noise contours, including 871 acres on-airport and 1,779.5 acres off-airport. The off-airport land uses include 323.5 acres of residential uses within the 65 CNEL and greater contour.

Residential land uses and schools are not compatible at noise exposure levels of CNEL 65 dB or greater. Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB (within CNEL 65 to 70 dB) and 30 dB (within CNEL 70 to 75 dB) should be incorporated into building codes and be considered in individual approvals. However, the use of NLR criteria would not eliminate outdoor noise problems. Churches located within the CNEL 65 to 70 dB contour are generally compatible, as long as measures to achieve an outdoor-to-indoor NLR of 25 dB are incorporated in design and construction of structures. Churches within the CNEL 70 to 75 dB contour need to achieve a NLR of 30 dB to be compatible. Park and recreation properties located within the CNEL 65 dB contour are considered compatible. An incompatible land use for parks and recreation properties would occur if the noise level was CNEL 75 dB or greater. There are approximately 28 acres of parks and recreation properties within the CNEL 75 dB noise contour, but these areas are specifically designated as golf course (Airways Golf Course) or recreation use clear zones.

1.2.5.3 Affected Population

FAA defines the CNEL 65 dB contour as the threshold of noise compatibility with residential land uses. Thus, the CNEL 65 dB contour is important for population impact assessments. The *CEQA Guidelines* also specify the CNEL 65 dB contour as significant (California Governor's Office of Planning and Research, 2001).

It was determined through GIS analysis that there are 2,446 households and 6,584 people residing within the CNEL 65 dB and greater noise contours in the 2004 existing conditions. Details are provided in **Table 1.2-15**.

Table 1.2-15: 2004 Existing Condition Noise Exposure Estimate by Land Use (acres)

Land Use Category	CNEL 65-70 dB	CNEL 70-75 dB	CNEL 75+ dB	CNEL 65+ dB TOTAL
On-Airport Total Acreage	91.4	179.7	600.0	871.0
Off-Airport Total Acreage	1,212.10	455.9	111.4	1779.5
Residential	317.6	5.8	---	323.5
Agricultural	198.7	28.5	0.1	227.3
Church	6.7	---	---	6.7
Commercial	80.6	2.9	---	83.5
Government	11.6	22.9	4.5	38.9
Industrial	264.0	97.6	42.6	404.2
Parks & Recreation	65.3	50.6	28.1	144.1
School	36.8	2.0	---	38.8
Transportation	7.5	0.9	---	8.3
Utilities	0.9	0.2	0.2	1.3
Vacant	101.6	52.5	9.6	163.8
Water	120.7	192.1	26.4	339.3
TOTAL ACREAGE	**1,303.5**	**635.6**	**711.4**	**2,650.5**
HOUSEHOLDS	2,186	236	24	2,446
POPULATION	6,041	497	46	6,584

2.0 IMPACT ASSESSMENT

2.1 METHODOLOGY

For this EA/EIR, construction-related noise was qualitatively assessed due to its temporary nature, while aircraft operations-related noise was quantitatively analyzed. Construction of the Proposed Project at FAT represents temporary sources of noise, the types and amounts of which would vary in time and by location depending on the nature of the operation, and the level of activity. The preparation of aircraft operations-related noise exposure contours requires the compilation of several types of information regarding aircraft operations at FAT. Specifically, aircraft operational data includes types and numbers of aircraft, times of day, runway use, and flight track use. These data categories are identical to those used to describe the noise exposure in **Section 1.1.2** for the 2004 existing condition.

2.1.1 Construction-Related Noise

For this EA/EIR, construction noise was qualitatively assessed due to its temporary nature. Construction of the Proposed Project at FAT would result in temporary sources of noise, the types and amounts of which would vary in time and by location depending on the nature of the operation, and the level of activity. The Proposed Project that would be implemented at the airport in two phases: the 2009–2014 projects and the 2015–2025 projects. The Proposed Project was originally planned to commence in 2006. This delay does not change the impact analysis results, because there is only a minimal difference in total aircraft operations at FAT between these years (i.e., 2006 to 2009). Therefore the underlying assumptions for the studies and analyses are still valid and reliable.

The noise analysis focused on the period from 2006 to 2012 because the majority of the Proposed Project would occur during this time frame. The only project extending into 2012 is the final grading and paving work associated with the secondary runway (Runway 11R/29L) and associated taxiways. Construction-related noise would be most noticeable during land clearing/grading and runway/taxiway paving as these activities are concentrated on certain areas of the airfield. The detailed list of the Proposed Project is provided in **Section 1.3** in the EA/EIR. It was assumed that there would be no construction activity noise associated with the No-Project Alternative.

2.1.2 Aircraft Operations Noise

Aircraft operational levels used in this analysis for 2004, 2011, and 2025 were obtained from the February 2006 FAA TAF. According to the TAF, 163,971 operations occurred at FAT in 2004, while 163,881 operations are projected to occur in 2011, a decrease of 90 operations from 2004. In 2025, the TAF projects 196,668 aircraft operations to occur, an increase of 32,697 operations from 2004 and 32,787 operations from 2011. The existing and forecasted annual aircraft operations, by air carrier, commuter, general aviation, and military are shown in **Table 2.1-1**.

Table 2.1-1: FAT Aircraft Operations

Aircraft Category	2004	2011	2025
Air Carrier	9,774	18,281	18,281
Commuter	41,894	29,839	39,955
Itinerant General Aviation	83,186	80,009	102,680
Itinerant Military	9,518	9,498	9,498
Local General Aviation	19,918	25,140	25,140
Local Military[1]	880	9,498	9,498
TOTAL	163,971	163,881	196,668

Note: [1] Local Military operations were included in the itinerant military total for modeling purposes.
Some numbers may not add, due to rounding.

Source: FAA TAF, December 2007

The alternatives studied in detail are not expected to result in any changes to aircraft operational levels, fleet mix, runway utilization, or track utilization. Therefore, these parameters are identical for both the No-Project and Proposed Project Alternatives. As noted above, changes in the number of aircraft operations (and associated fleet mix) are anticipated between the study years, but not between the alternatives within a given study year. The only difference between the No-Project and Proposed Project Alternatives are some minor adjustments to account for the 794-foot extension of Runway 11R/29L (secondary runway).

2.2 2009–2014 PROJECT FINDINGS

Detailed aircraft operations and fleet mix for 2011 are shown in **Tables 2.2-2** through **2.2-7**. The most significant changes expected to occur between 2004 and 2011 is the change in air carrier fleet mix and number of operations. Recently, many air carriers have retired older aircraft models as a result of increased maintenance and fuel costs. The benefits of replacing older, less efficient aircraft with newer models include lower maintenance costs, higher fuel and operational efficiency, and lower noise impacts. Fleet mix estimates for the 2011 aircraft operations were based on the 2009 fleet mix developed for the FAT Part 150 Study.

Table 2.2-2: 2011 Average Day Air Carrier Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures												Total
					Stage Length 1			Stage Length 2			Stage Length 3			Stage Length 4			
		Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	
74720B	WB	---	---	0.045	---	---	---	---	---	---	---	---	---	---	---	0.045	0.089
757PW	NB	0.170	---	0.681	---	---	---	---	---	---	---	---	---	0.851	---	---	1.702
767CF6	WB	2.214	0.681	---	---	---	1.192	---	---	0.511	---	---	---	1.192	---	---	5.789
A310	WB	0.624	---	---	---	---	---	0.624	---	---	---	---	---	---	---	---	1.248
CL601	NB	3.360	1.006	---	3.360	---	1.006	---	---	---	---	---	---	---	---	---	8.731
DC9Q7	NB	---	0.624	0.624	---	---	0.624	---	---	0.624	---	---	---	---	---	---	2.496
MD82	NB	0.871	---	0.871	---	---	---	---	---	---	---	0.871	---	0.871	---	---	3.485
MD83	NB	1.312	---	0.306	---	1.006	---	---	---	---	0.306	---	0.306	---	---	---	3.236
TOTAL		8.551	2.311	2.527	3.360	1.006	2.822	0.624	---	1.135	0.306	0.871	0.306	2.914	---	0.045	26.778

Note: AC = Aircraft Body
WB = Widebody
NB = Narrowbody
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.2-3: 2011 Average Day Commuter/Air Taxi Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
BEC58P	P	3.807	0.952	---	3.807	0.952	---	9.518
CL601	J	14.389	5.840	1.460	15.849	---	5.840	43.378
DHC6	P	2.538	0.635	---	2.538	0.635	---	6.346
DHC8	T	0.735	0.322	0.138	0.896	0.138	0.161	2.390
EMB120	T	11.256	3.799	0.986	12.069	2.061	1.911	32.082
GASEPF	P	1.269	0.317	---	1.269	0.317	---	3.172
SD330	T	1.267	---	---	1.267	---	---	2.534
SF340	T	6.618	2.897	1.238	8.066	1.238	1.448	21.505
TOTAL		41.878	14.762	3.821	45.760	5.341	9.360	120.922

Note: J – Jet
P – Prop
T – Turboprop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.2-4: 2011 Average Day General Aviation Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
BEC58P	P	4.696	0.546	0.034	4.696	0.546	0.034	10.552
CIT3	J	0.284	0.051	0.003	0.284	0.051	0.003	0.676
CNA172	P	2.344	0.123	---	2.344	0.123	---	4.933
CNA206	P	33.819	5.743	0.375	33.819	5.743	0.375	79.873
CNA441	P	2.813	0.493	0.040	2.813	0.493	0.040	6.692
CNA750	J	0.350	0.062	0.004	0.350	0.062	0.004	0.832
DC3	P	0.051	---	---	0.051	---	---	0.102
DC6	P	0.051	---	---	0.051	---	---	0.102
DHC6	P	2.331	0.416	0.028	2.331	0.416	0.028	5.552
FAL50	J	0.350	0.062	0.004	0.350	0.062	0.004	0.832
GASEPF	P	18.503	---	---	18.503	---	---	37.006
GASEPV	P	3.497	0.625	0.042	3.497	0.625	0.042	8.327
GV	J	6.411	1.145	0.076	6.411	1.145	0.076	15.265
IA1125	J	6.411	1.145	0.076	6.411	1.145	0.076	15.265
LEAR25	J	6.761	1.208	0.081	6.761	1.208	0.081	16.098
LEAR35	J	1.486	0.265	0.017	1.486	0.265	0.017	3.537
MU3001	J	0.350	0.062	0.004	0.350	0.062	0.004	0.832
OV10A	T	0.068	---	---	0.068	---	---	0.136
TOTAL		90.574	11.948	0.783	90.574	11.948	0.783	206.611

Note: J – Jet
P – Prop
T – Turboprop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1
Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.2-5: 2011 Average Day Military Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
F-16 PW9	J	10.708	0.564	---	10.708	0.564	---	22.544
F-18	J	1.587	---	---	1.587	---	---	3.174
TOTAL		12.295	0.564	---	12.295	0.564	---	25.718

Note: J – Jet
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1
Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.2-6: 2011 Average Day Helicopter Aircraft Operations

INM Aircraft	AC Body	Touch-and-Go Operations			Total
		Day	Eve	Night	
A109	H	1.217	0.406	0.406	2.029
B206L	H	0.041	0.014	0.014	0.069
B212	H	1.809	0.603	0.603	3.015
SA335F	H	0.041	0.014	0.014	0.069
TOTAL		3.108	1.037	1.037	5.182

Note: H – Helicopter
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.2-7: 2011 Average Day General Aviation Touch and Go Aircraft Operations

INM Aircraft	AC Body	Touch-and-Go Operations			Total
		Day	Eve	Night	
BEC58P	P	1.128	0.060	---	1.188
CNA172	P	35.820	1.886	---	37.706
CNA206	P	1.128	0.060	---	1.188
DHC6	P	1.128	0.060	---	1.188
GASEPF	P	9.426	---	---	9.426
GASEPV	P	1.128	0.060	---	1.188
TOTAL		49.758	1.188	0	51.884

Note: P – Prop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

The 2011 Proposed Project Alternative produces a smaller noise impact area when compared to the 2004 baseline condition. The reduction in the CNEL 65 dB noise contour as compared to the 2004 baseline condition is due primarily to the gradual replacement by aircraft owners of noisier Stage 2 aircraft with quieter Stage 3 aircraft or aircraft modified with new engines that meet Stage 3 requirements. The 2004 base year comparison is relevant for CEQA purposes only. The 2004 base year contour has a size of approximately 2,650 acres within the CNEL 65 dB area, with approximately 324 acres of residential land use. The 2011 Proposed Project contour has a size of approximately 2,416 acres within the CNEL 65 dB area, with approximately 231 acres of residential land use.

It was determined through GIS analysis that there are 1,800 households and 4,765 people residing within the CNEL 65 dB and greater noise contours under the Proposed Project Alternative. Details are provided in **Table 2.2-8**.

The reduction in the size of the CNEL 65 dB noise contour is a result of the 794-foot runway extension of Runway 11R. Under the Proposed Project Alternative the 794-foot runway extension allows aircraft departing to the southeast on Runway 11R to start their take-off roll 794 feet further from noise sensitive receptors to the southeast. This allows aircraft to overfly these noise sensitive receptors at slightly higher altitudes than is currently possible. Therefore, the Proposed Project does not significantly increase noise levels and results in a slight reduction the number of noise-sensitive receptors within the CNEL 65 dB noise contour compared to the No-Project Alternative. **Table 2.2-9** shows the GIS analysis conducted for the No-Project Alternative. Under the No-Project Alternative there are 1,805 households and 4,780 people residing within the CNEL 65 dB and greater noise contours.

Table 2.2-8: 2011 Proposed Project Alternative Noise Exposure Estimate by Land Use (acres)

Land Use Category	CNEL 65-70 dB	CNEL 70-75 dB	CNEL 75+ dB	CNEL 65+ dB TOTAL
On-Airport Total Acreage	94.6	183.8	581.2	859.6
Off-Airport Total Acreage	1,068.8	395.0	92.5	1,556.3
Residential	228.8	2.1	-	230.9
Agricultural	186.2	34.9	0.4	221.5
Church	3.3	-	-	3.3
Commercial	61.0	0.7	-	61.7
Government	14.1	21.1	3.3	38.5
Industrial	234.4	86.5	37.5	358.4
Parks & Recreation	65.5	42.9	26.1	134.5
School	18.7	0.4	-	19.1
Transportation	7.2	0.7	-	7.9
Utilities	0.3	0.3	0.1	0.7

Vacant	103.0	41.6	7.6	152.3
Water	146.5	163.6	17.6	327.7
TOTAL ACREAGE	**1,163.4**	**578.8**	**673.7**	**2,415.9**
HOUSEHOLDS	1605	178	17	1800
POPULATION	4378	356	31	4765

Some numbers may not add, due to rounding

Table 2.2-9: 2011 No-Project Alternative Noise Exposure Estimate by Land Use (acres)

Land Use Category	CNEL 65-70 dB	CNEL 70-75 dB	CNEL 75+ dB	CNEL 65+ dB TOTAL
On-Airport Total Acreage	94.7	184.0	580.5	859.3
Off-Airport Total Acreage	1,071.1	395.9	92.3	1,559.3
Residential	229.3	2.1	-	231.4
Agricultural	187.9	35.3	0.4	223.6
Church	3.3	-	-	3.3
Commercial	61.3	0.7	-	62.0
Government	14.2	21.1	3.2	38.5
Industrial	234.0	86.5	37.4	357.9
Parks & Recreation	65.9	42.8	26.1	134.7
School	18.9	0.4	-	19.3
Transportation	7.2	0.7	-	7.9
Utilities	0.3	0.3	-	0.7
Vacant	103.0	41.5	7.6	152.1
Water	145.8	164.4	17.7	327.9
TOTAL ACREAGE	**1,165.7**	**579.9**	**672.8**	**2,418.5**
HOUSEHOLDS	1,610	178	16	1,805
POPULATION	4,395	355	31	4,780

Some numbers may not add, due to rounding

2.3 2015–2025 PROJECT FINDINGS

The Proposed Project from 2015–2025 is addressed at the program level to meet CEQA requirements in the EIR. The 2015–2025 projects that would potentially affect calculation of aircraft noise exposure include installing a Category III Instrument Landing System for Runway 11R/29L. All other operational criteria would remain the same as used for the No-Project Alternative and Proposed Project. Even though the AMP included a forecast of future aircraft operations through 2020, it did not include detailed

analysis of the potential affect of the 2015–2025 projects on the use of the airfield. Therefore, an accurate quantitative analysis of aircraft noise exposure accounting for any induced changes in the operational characteristics of the airport for the 2015–2025 projects is not possible, and as such was not included in this EIR.

Detailed aircraft operations and fleet mix are shown in **Tables 2.3-1** through **2.3-6**. The most significant changes expected to occur between 2004 and 2025 is the change in air carrier fleet mix and number of operations. Recently, many air carriers have retired older aircraft models as a result of increased maintenance and fuel costs. The benefits of replacing older, less efficient aircraft with newer models include lower maintenance costs, higher fuel and operational efficiency, and lower noise impacts. Fleet mix estimates for the 2025 aircraft operations were based on the 2009 fleet mix developed for the FAT Part 150 Study.

Table 2.3-1: 2025 Average Day Air Carrier Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures												Total
					Stage Length 1			Stage Length 2			Stage Length 3			Stage Length 4			
		Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night	
74720B	WB	---	---	0.134	---	---	---	---	---	---	---	---	---	---	---	0.134	0.268
757PW	NB	0.182	---	0.728	---	---	---	---	---	---	---	---	---	0.910	---	---	0.268
767CF6	WB	2.376	0.731	---	---	---	1.279	---	---	0.548	---	---	---	1.279	---	---	6.213
A310	WB	0.656	---	---	---	---	---	0.656	---	---	---	---	---	---	---	---	1.312
CL601	NB	3.163	0.947	---	3.163	---	0.947	---	---	---	---	---	---	---	---	---	8.220
DC9Q7	NB	---	0.649	0.649	---	---	0.649	---	---	0.649	---	---	---	---	---	---	2.596
MD82	NB	0.817	---	0.817	---	---	---	---	---	---	---	0.817	---	0.817	---	---	3.268
MD83	NB	1.249	---	0.291	---	0.957	---	---	---	---	0.291	0.000	0.291	---	---	---	3.079
TOTAL		8.443	2.327	2.619	3.163	0.957	2.875	0.656	0.000	1.197	0.291	0.817	0.291	3.006	0.000	0.134	25.224

Note: AC = Aircraft Body
WB = Widebody
NB = Narrowbody
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.3-2: 2025 Average Day Commuter/Air Taxi Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
BEC58P	P	7.771	1.944	---	7.771	1.944	---	19.430
CL601	J	23.632	9.592	2.397	26.030	---	9.592	71.243
DHC6	P	5.829	1.458	---	5.829	1.458	---	14.574
DHC8	T	0.996	0.436	0.187	1.214	0.187	0.218	3.238
EMB120	T	3.977	1.342	0.348	4.264	0.728	0.675	11.334
GASEPF	P	1.943	0.486	---	1.943	0.486	---	4.858
SD330	T	2.429	---	---	2.429	---	---	4.858
SF340	T	9.966	4.362	1.864	12.147	1.864	2.181	32.384
TOTAL		56.543	19.620	4.796	61.627	6.667	12.666	161.919

Note: J – Jet
P – Prop
T – Turboprop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.3-3: 2025 Average Day General Aviation Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
BEC58P	P	5.618	0.654	0.041	5.618	0.654	0.041	12.626
CIT3	J	0.340	0.061	0.004	0.340	0.061	0.004	0.810
CNA172	P	2.804	0.147	---	2.804	0.147	---	5.902
CNA206	P	40.459	6.871	0.448	40.459	6.871	0.448	95.556
CNA441	P	3.366	0.590	0.047	3.366	0.590	0.047	8.006
CNA750	J	0.418	0.075	0.005	0.418	0.075	0.005	0.996
DC3	P	0.061	---	---	0.061	---	---	0.122
DC6	P	0.061	---	---	0.061	---	---	0.122
DHC6	P	2.789	0.498	0.034	2.789	0.498	0.034	6.642
FAL50	J	0.418	0.075	0.005	0.418	0.075	0.005	0.996
GASEPF	P	22.136	---	---	22.136	---	---	44.272
GASEPV	P	4.184	0.747	0.050	4.184	0.747	0.050	9.962
GV	J	7.670	1.370	0.091	7.670	1.370	0.091	18.262
IA1125	J	7.670	1.370	0.091	7.670	1.370	0.091	18.262
LEAR25	J	8.089	1.445	0.096	8.089	1.445	0.096	19.260
LEAR35	J	1.777	0.317	0.021	1.777	0.317	0.021	4.230
MU3001	J	0.418	0.075	0.005	0.418	0.075	0.005	0.996
OV10A	T	0.081	---	---	0.081	---	---	0.162
TOTAL		108.359	14.295	0.938	108.359	14.295	0.938	247.184

Note: J – Jet
P – Prop
T – Turboprop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1
Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.3-4: 2025 Average Day Military Aircraft Operations

INM Aircraft	AC Body	Arrivals			Departures			Total
		Day	Eve	Night	Day	Eve	Night	
F-16 PW9	J	10.708	0.564	---	10.708	0.564	---	22.544
F-18	J	1.587	---	---	1.587	---	---	3.174
TOTAL		12.295	0.564	0.000	12.295	0.564	0.000	25.718

Note: J – Jet
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

There are no departure operations greater than Stage Length 1
Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.3-5: 2025 Average Day Helicopter Aircraft Operations

INM Aircraft	AC Body	Touch-and-Go Operations			Total
		Day	Eve	Night	
A109	H	1.456	0.485	0.485	2.426
B206L	H	0.049	0.016	0.016	0.081
B212	H	2.164	0.722	0.722	3.608
SA335F	H	0.049	0.016	0.016	0.081
TOTAL		3.718	1.239	1.239	6.196

Note: H – Helicopter
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Table 2.3-6: 2025 Average Day General Aviation Touch and Go Aircraft Operations

INM Aircraft	AC Body	Touch-and-Go Operations			Total
		Day	Eve	Night	
BEC58P	P	0.564	0.030	---	0.594
CNA172	P	17.910	0.943	---	18.853
CNA206	P	0.564	0.030	---	0.594
DHC6	P	0.564	0.030	---	0.594
GASEPF	P	4.713	---	---	4.713
GASEPV	P	0.564	0.030	---	0.594
TOTAL		24.879	1.063	0.000	25.942

Note: P – Prop
Day: 7:00 a.m. – 6:59 p.m.
Evening: 7:00 p.m. – 9:59 p.m.
Night: 10:00 p.m. – 6:59 a.m.

Arrival and departure data details number of aircraft by type and time of day.
Some numbers may not add, due to rounding.

Source: FAT, 2006

Due to the expected change in aircraft operational levels and fleet mix at FAT described above, the 2025 Proposed Project produces a smaller noise impact area when compared to the 2004 baseline condition (i.e., the CNEL 65 dB noise contour reduces in size even as aviation traffic at FAT grows regardless of whether the Proposed Project is implemented, and less land would be affected). The reduction in contour is due to the change in aircraft at FAT as Stage 2 aircraft are replaced with Stage 3 aircraft or modified with new engines that meet Stage 3 requirements. The base year comparison is relevant for CEQA purposes only. NEPA is focused on future No–Project compared to the future Proposed Project. The 2004 base year contour has a size of approximately 2,650 acres within the CNEL 65 dB area, with approximately 324 acres of residential land use. The 2025 Proposed Project contour has a size of approximately 2,510 acres within the CNEL 65 dB area, with approximately 271 acres of residential land use. The increase in acres between the 2011 and 2025 CNEL 65 dB is due to the forecasted increase in aircraft operations in the future. In terms of potential impacts to land uses, in 2025 both the No-Project Alternative and the Proposed Project would result in approximately 271 acres of residential land within the CNEL 65 dB contour. This alternative would not result in noise impacts as the overall affected land use decreases.

APPENDIX C
LAND USE ASSURANCE LETTER

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

FLY FRESNO
City of Fresno - Airports

Russell C. Widmar, AAE
Director of Aviation

Fresno Yosemite International Airport
Fresno Chandler Executive Airport
4995 East Clinton Way
Fresno, CA 93727-1525
559-621-4500
FAX 559-251-4825
www.flyfresno.org

July 10, 2008

Mr. Douglas Pomeroy
Environmental Protection Specialist
Federal Aviation Administration
Western-Pacific Region
San Francisco Airports District Office
831 Mitten Road, Suite 210
Burlingame, CA 94010

RE: Land Use Assurance for Fresno Yosemite International Airport

Dear Mr. Pomeroy:

The City of Fresno provides assurance that appropriate action, including the enforcement of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the Fresno Yosemite International Airport to activities and purposes compatible with normal airport operation, including landing and takeoff of aircraft. This action includes the consideration of both existing and planned land uses. In addition, we will encourage and support Fresno County and the City of Clovis in their efforts to do the same.

The designation of land uses in the vicinity of the Fresno Yosemite International Airport is largely the responsibility of the City of Fresno. The City is divided into 11 community planning areas, of which the Hoover, McLane, and Roosevelt Community Planning Areas are adjacent to the Airport. Each has approved land use designations which provide for residential, commercial, industrial, office, and parks/open space uses in the immediate vicinity of the Airport. In addition, the Airport Land Use Policy Plan (adopted June 1986, revised May 1990) was adopted by the Fresno County Airport Land Use Commission (ALUC), as required by Section 21675 of the California Public Utilities Code. The plan establishes criteria that the ALUC will use in evaluation of general and specific plans, zoning ordinances, building regulations, and airport master plans proposed for adoption or amendment in the Airport vicinity.

The City of Fresno will continue to work with Fresno County and the City of Clovis to ensure that land uses in the immediate vicinity of the Airport are compatible with the Airport, and are in keeping with the land uses described in the Airport Land Use Policy Plan.

Should the Federal Aviation Administration have any questions or comments regarding these land use assurances, please do not hesitate to contact me at (559) 621-4500.

Sincerely,

Kevin Meikle
Airports Planning Manager

cc: David Reel, URS Corporation

APPENDIX D
SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

1.0 AFFECTED ENVIRONMENT

1.1 STUDY METHODS

Census data (1990 and 2000), California Department of Finance (DOF) projections, and Fresno Council of Government (Fresno COG) data were used to determine the social characteristics of the Generalized Study Area. Parcel information and site surveys of the existing land uses in the Generalized and Detailed Study Areas were used to determine if any direct or indirect impacts would occur from implementation of the alternatives studied in detail.

1.2 EXISTING ENVIRONMENTAL CONDITIONS

1.2.1 Socioeconomic Conditions

1.2.1.1 Six-County Socioeconomic Study Area

The Six-County Socioeconomic Study Area includes Fresno, Kings, Madera, Mariposa, Merced, and Tulare Counties. The total land area of this six-county region is 17,694 square miles. Fresno County is rapidly changing from an agriculturally based community to an urbanized center within central California. The urbanization of Fresno County is reflected in the decline in farms, while all other five counties experienced growth in the number of farms, from 1997-2002. All six counties experienced a growth in population density between 1990 and 2000, with Fresno County having the highest population density, 134.1 persons per square mile (U.S. Census Bureau, 1990 and 2000).

Population Trends

Population trends from 1970 through 2000 for the Six-County Socioeconomic Study Area are shown in **Table 1.2-1**. The Six-County Socioeconomic Study Area as a whole has experienced significant growth since 1970. On a percentage basis, Madera and Mariposa Counties experienced the most growth over the last 30 years, at 43.8 percent and 44.4 percent respectively. The four remaining counties grew at a similar percentage basis over the 30-year time frame, at around 25 percent. Fresno County shows the largest gain in the number of residents over the last 30 years, with an increase of nearly 386,000 people. Strong growth in terms of the number of residents was also seen in Merced and Tulare Counties during the 30-year period. This growth is attributed to a net in-migration, as coastal Californians moved toward the Fresno region due to high housing costs, versus growth as a result of natural increase (e.g., births exceeding death).

More recently, Madera County experienced the highest growth rate from 1990-2000 at 39.8 percent, followed by Kings County at 27.6 percent. More moderate recent growth was experienced in the four remaining counties over the same 10-year period.

Table 1.2-1: Six-County Population Trends

Year	Area	Total	1970 to 1980 Growth	1980 to 1990 Growth	1990 to 2000 Growth	Total 30 Year Population Gain
1970	Fresno	413,429				
1980	Fresno	514,621	24.5%			
1990	Fresno	667,490		29.7%		
2000	Fresno	799,407			19.8%	385,978
1970	Kings	66,717				
1980	Kings	73,738	10.5%			
1990	Kings	101,469		37.6%		
2000	Kings	129,461			27.6%	62,744
1970	Madera	41,519				
1980	Madera	63,116	52.0%			
1990	Madera	88,090		39.6%		
2000	Madera	123,109			39.8%	81,590
1970	Mariposa	6,015				
1980	Mariposa	11,108	84.7%			
1990	Mariposa	14,302		28.8%		
2000	Mariposa	17,130			19.8%	11,115
1970	Merced	104,629				
1980	Merced	134,558	28.6%			
1990	Merced	178,403		32.6%		
2000	Merced	210,554			18.0%	105,925
1970	Tulare	188,322				
1980	Tulare	245,738	30.5%			
1990	Tulare	311,921		26.9%		
1990	Tulare	368,021			18.0%	179,699
1970	California	19,971,069				
1980	California	23,667,902	18.5%			
1990	California	29,760,021		25.7%		
1990	California	33,871,648			13.8%	13,900,579
1970	U.S.	203,302,031				
1980	U.S.	226,542,199	11.4%			
1990	U.S.	248,709,873		9.8%		
1990	U.S.	281,421,906			13.2%	78,119,875

Source: U.S. Census Bureau, 1970, 1980, 1990, and 2000

Race

As shown in **Table 1.2-2**, the majority of the Six-County Socioeconomic Study Area is considered to be white. However, all counties became more diversified between 1990 and 2000, which is evidenced by the fact that percentage of white population dropped by 9.2 percent over the 10-year period. Kings County had by far the largest concentration of African American residents at more than 8 percent in 1990 and 2000, while Fresno County experienced the next highest percentage of African Americans at nearly 5 percent in 1990 and 2000. Both Fresno and Merced Counties had the highest concentrations of Asians or Pacific Islanders in 1990 and 2000, at more than 8 percent and more than 7 percent, respectively. American Indians and other populations make up the rest of the Six-County Socioeconomic Study Area. The Fresno region has few American Indians, as seen in **Table 1.2-2**. The largest concentration of American Indians was found in Mariposa County, at 4.5 percent in 1990 and 3.5 percent in 2000. In contrast, significant concentrations of other populations were seen in the Six-County Socioeconomic Study Area except for Mariposa County. In fact, Merced County experienced the largest growth in other residents at 13.3 percent over the 10-year period.

According to U.S. Census Bureau data, the Latino populations are not an official ethnic category due to reporting inaccuracies. Often, Latinos self-report themselves as being a part of another ethnic category, mostly white. While the census data cannot provide an exact number of Latinos in a census year, those that marked Latino were separated into their own category for analysis purposes. **Table 1.2-2** shows large concentrations of Latino residents were found throughout the Six-County Socioeconomic Study Area, except for Mariposa County. Latino residents in the Six-County Socioeconomic Study Area grew nearly 10 percent over the 1990 to 2000 period.

Age Distribution

According to **Table 1.2-3**, the median age characteristics for the Six-County Socioeconomic Study Area ranged around 30 years old, except for Mariposa County, which had a median age near 40 in 1990 and 2000. The percentage of residents age 18 and under, as well as those people age 65 and over, generally remained consistent from 1990 to 2000. Fresno County showed the largest increase in the number of residents age 18 and under at 0.8 percent. Of note, all six counties experienced a decrease in the number of residents age 65 and over during the 10-year period. Merced County has the highest percentage of individuals age 18 and under at 34.5 percent in 2000, while Mariposa County has the highest percentage of individuals age 65 years and over, at 17.2 percent in 2000.

Income and Housing Distribution

As shown in **Table 1.2-4**, median household income levels for the Six-County Socioeconomic Study Area households increased for all counties from 1990 to 2000. The most significant median household income gains were experienced in Kings and Merced Counties at $10,242 and $9,984, respectively. All counties in the Fresno region had median household incomes well above the U.S. Department of Housing and Urban Development, Health and Human Services Poverty Guidelines for a family of four in 1990 and 2000.

Table 1.2-2: Six-County Race

Area	Year	Total	White	%	African American	%	American Indian and Alaska Native	%	Asian/Pacific Islander	%	Other	%	Latino	%
Fresno	1990	667,490	423,698	63.5	32,869	4.9	7,540	1.1	57,278	8.6	146,105	21.9	231,853	34.7
	2000	799,407	432,756	54.1	41,110	5.1	12,587	1.6	64,547	8.1	248,407	31.1	352,205	44.1
Kings	1990	101,469	65,166	64.2	8,243	8.1	1,133	1.1	3,594	3.5	23,333	23.0	34,551	34.1
	2000	129,461	69,521	53.7	10,745	8.3	2,201	1.7	4,272	3.3	42,852	33.1	56,445	43.6
Madera	1990	88,090	63,369	71.9	2,494	2.8	1,418	1.6	1,264	1.4	19,545	22.2	30,400	34.5
	2000	123,109	76,574	62.2	5,047	4.1	3,201	2.6	1,847	1.5	36,440	29.6	54,537	44.3
Mariposa	1990	14,302	13,221	92.4	122	0.9	639	4.5	128	0.9	192	1.3	697	4.9
	2000	17,130	15,229	88.9	120	0.7	600	3.5	137	0.8	1,045	6.1	1,336	7.8
Merced	1990	178,403	120,280	67.4	8,523	4.8	1,516	0.8	15,128	8.5	32,956	18.5	58,107	32.6
	2000	210,554	118,331	56.2	8,001	3.8	2,527	1.2	14,739	7.0	66,956	31.8	95,381	45.3
Tulare	1990	311,921	204,835	65.7	4,618	1.5	3,992	1.3	13,319	4.3	85,157	27.3	120,893	38.8
	2000	368,021	213,820	58.1	5,888	1.6	5,888	1.6	12,513	3.4	129,543	35.2	186,955	50.8
Combined Counties	1990	1,361,675	890,569	65.4	56,869	4.2	16,238	1.2	90,711	6.7	307,288	22.6	476,501	35.0
	2000	1,647,682	926,230	56.2	70,912	4.3	27,003	1.6	98,054	6.0	525,243	31.9	746,859	45.3
California	1990	29,760,021	20,524,327	69.0	2,208,801	7.4	242,164	0.8	2,845,659	9.6	3,939,070	13.2	7,687,938	25.8
	2000	33,871,648	20,170,059	59.5	2,263,882	6.7	333,346	1.0	3,814,474	11.3	7,289,860	21.5	10,966,556	32.4
U.S.	1990	248,709,873	199,686,070	80.3	29,986,060	12.1	1,959,234	0.8	7,273,662	2.9	9,804,847	3.9	22,354,059	9.0
	2000	281,421,906	211,460,626	75.1	34,658,190	12.3	2,475,956	0.9	10,641,833	3.8	22,185,301	7.9	35,305,818	12.5

Source: U.S. Census Bureau, 1990 and 2000

Table 1.2-3: Six-County Age Distribution

Area	Year	Total Individuals	Median Age	Total Individuals 18 and Under	% 18 and Under	Total Individuals 65 and Older	% 65 and Over
Fresno	1990	667,490	31.3	209,036	31.3	69,269	10.4
	2000	799,407	29.9	256,425	32.1	79,209	9.9
Kings	1990	101,469	29.7	30,788	30.3	7,825	7.7
	2000	129,461	30.2	37,528	29.0	9,557	7.4
Madera	1990	88,090	33.0	27,383	31.1	10,776	12.2
	2000	123,109	32.7	36,467	29.6	13,596	11.0
Mariposa	1990	14,302	38.8	3,266	22.8	2,508	17.5
	2000	17,130	42.9	4,125	24.1	2,940	17.2
Merced	1990	178,403	30.1	60,666	34.0	16,468	9.2
	2000	210,554	29.0	72,684	34.5	20,004	9.5
Tulare	1990	311,921	31.3	103,137	33.1	33,788	10.8
	2000	368,021	29.2	124,252	33.8	35,917	9.8
Combined Counties	1990	1,361,675	32.4	434,276	31.9	140,364	10.3
	2000	1,647,682	32.3	531,481	32.3	161,223	9.8
California	1990	29,760,021	31.7	7,750,725	26.0	3,135,552	10.5
	2000	33,871,648	33.3	10,234,571	30.2	3,595,658	10.6
U.S.	1990	248,709,873	32.8	63,604,432	25.6	31,241,831	12.6
	2000	281,421,906	35.3	80,473,265	28.6	34,991,753	12.4

Source: U.S. Census Bureau, 1990 and 2000

The number of residents considered to be below the poverty level is another indicator of income distribution. All counties in the Fresno region did not experience significant gains in the number of people below the poverty level. The largest gain was experienced in Madera County, at 4.2 percent. This increase is primarily attributed to the region transitioning from an agricultural economy to a service sector economy during the 1990s.

Table 1.2-4 also shows the region's housing distribution. Fresno County had by far the largest number of housing units in 1990 and 2000, with Tulare County a distant second. All Six-Socioeconomic Study Area Counties experienced similar percentages of vacant housing units, except for Mariposa County, which had 27.2 percent in 1990 and 25.1 percent in 2000. This unusually high number is attributed to a large number of seasonal homes in the Sierra Nevada Mountains.

Table 1.2-4: Six-County Income and Housing Distribution

Area	Year	Income Distribution				Housing Distribution			
		Total Individuals	Median House-hold Income	Individuals with Income Below Poverty Level	% of Individuals Below Poverty Level	Housing Units	Occupied Housing	Vacant Housing	% Vacant
Fresno	1990	667,490	$26,377	140,510	21.1	235,563	220,933	14,630	6.2
	2000	799,407	$34,725	179,085	22.4	270,767	252,940	17,827	6.6
Kings	1990	101,469	$25,507	16,218	16.0	30,843	29,082	1,761	5.7
	2000	129,461	$35,749	25,245	19.5	36,563	34,418	2,145	5.9
Madera	1990	88,090	$27,370	15,160	17.2	30,831	28,370	2,461	8.0
	2000	123,109	$36,286	26,345	21.4	40,387	36,155	4,232	10.5
Mariposa	1990	14,302	$25,272	1,782	12.5	7,700	5,604	2,096	27.2
	2000	17,130	$34,626	2,535	14.8	8,826	6,613	2,213	25.1
Merced	1990	178,403	$25,548	34,813	19.5	58,410	55,331	3,079	5.3
	2000	210,554	$35,532	45,690	21.7	68,373	63,815	4,558	6.7
Tulare	1990	311,921	$24,450	69,125	22.2	108,031	97,861	7,152	6.6
	2000	368,021	$33,983	87,957	23.9	126,772	116,326	10,446	8.2
Combined Counties	1990	1,361,675	$25,754	277,608	20.4	471,378	437,181	31,179	6.6
	2000	1,647,682	$35,150	366,858	22.	551,688	510,267	41,421	7.5
California	1990	29,760,021	$35,798	3,627,585	12.2	11,182,882	10,381,206	801,676	7.2
	2000	33,871,648	$47,493	4,706,130	13.9	12,214,549	11,502,870	711,679	5.8
U.S.	1990	248,709,873	$30,056	31,742,864	12.8	102,263,678	91,947,410	10,316,268	10.1
	2000	281,421,906	$41,994	33,899,812	12.0	115,904,641	105,480,101	10,424,540	9.0
1989 Health and Human Services Poverty Guidelines for a family of 4 = $12,100									
1999 Health and Human Services Poverty Guidelines for a family of 4 = $16,700									

Source: U.S. Census Bureau, 1990 and 2000

Anticipated Population Changes

The California State Department of Finance (DOF) develops population estimates that are used for budgetary and economic forecasts, as well as determining the annual appropriations for all of California's jurisdictions. DOF projections are made for the state and counties for 50 years into the future, with 10-year interim outlooks. The approved forecasts begin in 2000 and extend to the year 2050, in ten-year increments. Also, DOF has prepared estimates for year 2005, which are included in this Draft EA/EIR.

The Fresno Council of Governments (Fresno COG) is the Metropolitan Planning Organization (MPO) for the immediate Fresno region. Among other things, the Fresno COG assists with transportation planning and airport land use issues for the region. One of its many tasks includes forecasting population and land use changes, which are critical assumptions used in modeling transportation impacts and air quality conformity. The COG approved forecasts begin in 2005 and extend to the year 2025, in five-year increments. Since the COG only maintains information for Fresno County, the best available information regarding population and land use changes for the entire Six-County Socioeconomic Study Area from DOF was used for this part of the analysis.

As seen in **Table 1.2-5**, DOF predicts moderate population growth for the Six-County Socioeconomic Study Area, except for Merced County, where stronger growth is predicted from 2005 to 2010. During the 2010 to 2020 time frame, strong population growth is expected to outpace the 2005 to 2010 period for all six counties. Above-average growth is again anticipated in Merced County at 29.9 percent, while below-average growth is forecast for Mariposa County. For the 2020 to 2030 time frame, population growth is anticipated to be nearly equal to the previous 10-year period, except for Merced County, which is anticipated to slow when compared to the previous time frame. Overall, the Six-County Socioeconomic Study Area is expected to gain approximately one million people over the next 25 years, which would be an increase of nearly 55 percent.

Table 1.2-5: Six-County Population Forecasts

Area	[1] 2005 Population	[2] 2010 Population	2005 to 2010 % Change	[2] 2020 Population	2010 to 2020% Change	[2] 2030 Population	2020 to 2030% Change
Fresno	883,650	949,961	7.5%	1,114,654	17.3%	1,297,476	16.4%
Kings	145,110	156,334	7.7%	184,751	18.2%	223,767	21.1%
Madera	140,747	150,278	6.8%	183,966	22.4%	219,832	19.5%
Mariposa	18,091	18,608	2.9%	20,607	10.7%	22,435	8.9%
Merced	241,464	277,715	15.0%	360,831	29.9%	437,880	21.4%
Tulare	411,701	447,315	8.7%	543,779	21.6%	650,466	19.6%
Combined Counties	1,840,763	2,000,211	8.7%	2,408,588	20.4%	2,851,856	18.4%
California	36,728,196	39,246,767	6.9%	43,851,741	11.7%	48,110,671	9.7%
U.S.[3]	287,716,000	308,936,000	7.4%	335,805,000	8.7%	363,584,000	8.3%

Notes: [1] DOF E-1: State/County Population Estimates
[2] DOF P-1: State/County Population Projections
[3] U.S. Census Population Projections
Source: California Department of Finance, 2006; U.S. Census Bureau, 2006

1.2.1.2 Generalized Study Area

Census tract boundaries, as developed by the U.S. Census Bureau, were used as the basis for depicting socioeconomic existing conditions in the Generalized Study Area. As seen on **Figures 1.2-1** and **1.2-2**

the census tract boundaries do not directly correlate to the Generalized Study Area boundary. Therefore, only the following census tracts were analyzed as a part of this analysis:

- Year 1990 and 2000 Census Tract 58.03;
- Year 1990 and 2000 Census Tract 31.01;
- Year 1990 Census Tract 30 and its year 2000 geographic equivalent (Census Tracts 30.01 and 30.02);
- Year 1990 Census Tract 53.03 and its year 2000 geographic equivalent (Census Tracts 53.04 and 53.05);
- Year 1990 and 2000 Census Tract 52.02;
- Year 1990 Census Tract 32 and its year 2000 geographic equivalent (Census Tracts 32.01 and 32.02);
- Year 1990 and 2000 Census Tract 53.02;
- Year 1990 and 2000 Census Tract 53.01; and
- Year 1990 and 2000 Census Tract 52.01.

The Generalized Study Area includes small portions of Fresno County and the City of Clovis, with the majority located in the City of Fresno, all of which is predominantly urbanized. The total land area is approximately 2,721 acres.

Population Trends

Table 1.2-6 lists the 1990 and 2000 population numbers for the analyzed census tracts in the Generalized Study Area. Unlike to the Six-County Socioeconomic Study Area, only portions of the Generalized Study Area experienced significant growth over the 10-year period, with an average increase of 7.3 percent, which was well below Fresno County's growth rate. Year 1990 Census Tract 53.03 and its year 2000 geographic equivalent (Census Tracts 53.04 and 53.05) experienced an increase of 18.3 percent, while Year 1990 Census Tract 32 and its year 2000 geographic equivalent (Census Tracts 32.01 and 32.02) experienced an increase of 29.1 percent. Of note, Census Tract 31.01, which is where FAT is primarily located, experienced a decline of 12.1 percent over the 10-year time period.

Table 1.2-6: Generalized Study Area Population Trends

Census Tract	Year	Total	1990 to 2000 Change
58.03/58.03	1990	7,003	
	2000	7,712	10.1%
31.01/31.01	1990	10,336	
	2000	9,088	-12.1%
[1] 30/30.01 & 30.02	1990	7,687	
	2000	9,091	18.3%
[2] 53.03/53.04 & 53.05	1990	8,617	
	2000	8,634	0.2%
52.02/52.02	1990	3,595	
	2000	3,661	1.8%
[3] 32/32.01 & 32.02	1990	7,978	
	2000	10,300	29.1%
53.02/53.02	1990	4,622	
	2000	4,957	7.2%
53.01/53.01	1990	5,226	
	2000	5,404	3.4%
52.01/52.01	1990	7,147	
	2000	7,926	10.9%
Combined Census Tracts	1990	62,211	
	2000	66,773	7.3%
Fresno County	1990	667,490	
	2000	799,407	19.8%

Note: [1] Year 1990 Census Tract 30 is geographically equivalent to year 2000 Census Tracts 30.01 and 30.02
[2] Year 1990 Census Tract 53.03 is geographically equivalent to year 2000 Census Tracts 53.04 and 53.05
[3] Year 1990 Census Tract 32 is geographically equivalent to year 2000 Census Tracts 32.01 and 32.02

Source: U.S. Census Bureau, 1990 and 2000

Race

The majority of the Generalized Study Area is also considered white, according to **Table 1.2-7**. Similar to the Six-County Socioeconomic Study Area, the Generalized Study Area also became more diversified between 1990 and 2000. This is evidenced by the fact that percentage of white population dropped by an average of 20.4 percent over the 10-year period. The largest white resident decline was experienced in

Year 1990 Census Tract 30, and its year 2000 geographic equivalent (Census Tracts 30.01 and 30.02) losing 29 percent white residents, and Year 1990 Census Tract 32 and its year 2000 geographic equivalent (Census Tracts 32.01 and 32.02) losing 26.9 percent white residents. African American populations were relatively stable from over the 10-year period, with a 2.6 percent gain experience in Census Tract 53.02 and Census Tract 53.01. Nearly all Generalized Study Area Census Tracts experienced a gain in the number of Asians or Pacific Islanders from 1990 to 2000. The largest increase was experienced in Census Tract 58.03 at 7.3 percent. The Generalized Study Area has few American Indians, as seen in **Table 1.2-7,** similar to the Six-County Socioeconomic Study Area, and little change in their population percentages was seen over the 10-year period. In contrast, other populations increased dramatically across the Generalized Study Area. The largest other resident increases were experienced in Year 1990 Census Tract 30 and its year 2000 geographic equivalent (Census Tracts 30.01 and 30.02) at 21.3 percent, Census Tract 52.02 at 20.2 percent, and Year 1990 Census Tract 32 and its year 2000 geographic equivalent (Census Tracts 32.01 and 32.02) at 20.0 percent.

As previously mentioned, Latino populations are not an official ethnic category due to reporting inaccuracies. **Table 1.2-7** shows the highest concentrations of Latino residents were found in Year 1990 Census Tract 30 and its year 2000 geographic equivalent (Census Tracts 30.01 and 30.02) and Census Tract 52.02. Overall, Latino residents in the Generalized Study Area moderately increased by 13.2 percent from 1990 to 2000.

Age Distribution

As seen in **Table 1.2-8**, average age characteristics for the 1990 Census Tracts were not available for the Generalized Study Area. However, the average ages for the 2000 Census Tracts were accessible. On the whole, the average ages were in the mid twenties to the low thirties, with year 2000 Census Tract 53.01 experiencing the highest average age at 32.3.

Overall, the number of people at 18 and under increased in the Generalized Study Area. The percentage of residents age 18 and under increased the most in Census Tract 52.02 and Census Tract 53.02 at 9 percent and 8.6 percent, respectively. In contrast, the percentage of people age 65 and over remained nearly the same in the Generalized Study Area. Of note, Year 1990 Census Tract 32 and its year 2000 geographical equivalent (Census Tracts 32.01 and 32.02) showed the largest decrease in the percentage of people age 65 and over, at 3.4 percent.

Table 1.2-7: Generalized Study Area Race

Census Tract	Year	Total	White	%	Black or African American	%	American Indian and Alaska Native	%	Asian/Pacific Islander	%	Other	%	Latino	%
58.03/58.03	1990	7,003	5,241	74.8	159	2.3	160	2.3	546	7.8	897	12.8	1,842	26.3
	2000	7,712	4,798	62.2	109	1.4	63	0.8	1,164	15.1	1,578	20.5	2,110	27.4
31.01/31.01	1990	10,336	8,344	80.7	299	2.9	147	1.4	499	4.8	1,047	10.1	1,708	16.5
	2000	9,088	6,367	70.1	250	2.8	206	2.3	479	5.3	1,786	19.7	2,321	25.5
[1] 30/30.01 & 30.02	1990	7,687	5,222	67.9	682	8.9	106	1.4	418	5.4	1,259	16.4	2,103	27.4
	2000	9,091	3,538	38.9	945	10.4	120	1.3	1,059	11.6	3,429	37.7	3,917	43.1
[2] 53.03/53.04 & 53.05	1990	8,617	6,075	70.5	472	5.5	122	1.4	1,082	12.6	866	10.0	1,653	19.2
	2000	8,634	4,615	53.5	548	6.3	59	0.7	1,068	12.4	2,344	27.1	2,742	31.8
52.02/52.02	1990	3,595	2,430	67.6	325	9.0	34	0.9	383	10.7	423	11.8	846	23.5
	2000	3,661	1,589	43.4	258	7.0	46	1.3	597	16.3	1,171	32.0	1,660	45.3
[3] 32/32.01 & 32.02	1990	7,978	5,784	72.5	404	5.1	216	2.7	575	7.2	999	12.5	1,601	20.1
	2000	10,300	4,694	45.6	778	7.6	362	3.5	1,120	10.9	3,346	32.5	4,202	40.8
53.02/53.02	1990	4,622	3,566	77.2	267	5.8	31	0.7	345	7.5	413	8.9	850	18.4
	2000	4,957	2,733	55.1	418	8.4	89	1.8	507	10.2	1,210	24.4	1,594	32.2
53.01/53.01	1990	5,226	3,810	72.9	268	5.1	48	0.9	437	8.4	663	12.7	1,096	21.0
	2000	5,404	3,059	56.6	414	7.7	77	1.4	699	12.9	1,155	21.4	1,697	31.4
52.01/52.01	1990	7,147	5,487	76.8	442	6.2	70	1.0	277	3.9	871	12.2	1,466	20.5
	2000	7,926	4,346	54.8	644	8.1	134	1.7	750	9.5	2,052	25.9	2,856	36.0
Combined Census Tracts	1990	62,211	45,959	73.9	3,318	5.3	934	1.5	4,562	7.3	7,438	12.0	13,165	21.2
	2000	66,773	35,739	53.5	4,364	6.5	1,156	1.7	7,443	11.1	18,071	27.1	23,099	34.6
Fresno County	1990	667,490	423,698	63.5	32,869	4.9	7,540	1.1	57,278	8.6	146,105	21.9	231,853	34.7
	2000	799,407	432,756	54.1	41,110	5.1	12,587	1.6	64,547	8.1	248,407	31.1	352,205	44.1

Note: [1] Year 1990 Census Tract 30 is geographically equivalent to year 2000 Census Tracts 30.01 and 30.02
[2] Year 1990 Census Tract 53.03 is geographically equivalent to year 2000 Census Tracts 53.04 and 53.05
[3] Year 1990 Census Tract 32 is geographically equivalent to year 2000 Census Tracts 32.01 and 32.02

Source: U.S. Census Bureau, 1990 and 2000

Table 1.2-8: Generalized Study Area Age Distribution

Census Tract	Year	Total Individuals	Median Age	Total Individuals Under 18 Years of Age	% below 18 Years of Age	Total Individuals 65 Years or Older	% at or above 65 Years of Age
58.03/58.03	1990	7,003	N/A	2,417	34.5	411	5.9
	2000	7,712	29.9	2,987	38.7	519	6.7
31.01/31.01	1990	10,336	N/A	2,617	25.3	659	6.4
	2000	9,088	29.4	2,814	31.0	769	8.5
[1] 30/30.01 & 30.02	1990	7,687	N/A	2,099	27.3	827	10.8
	2000	9,091	26.4	3,300	36.3	890	9.8
[2] 53.03/53.04 & 53.05	1990	8,617	N/A	2,011	23.3	564	6.5
	2000	8,634	27.9	2,579	29.9	705	8.2
52.02/52.02	1990	3,595	N/A	1,093	30.4	340	9.5
	2000	3,661	25.4	1,443	39.4	295	8.1
[3] 32/32.01 & 32.02	1990	7,978	N/A	2,285	28.6	1,044	13.1
	2000	10,300	27.7	3,566	34.6	1,000	9.7
53.02/53.02	1990	4,622	N/A	941	20.4	481	10.4
	2000	4,957	27.0	1,438	29.0	560	11.3
53.01/53.01	1990	5,226	N/A	1,446	27.7	656	12.6
	2000	5,404	32.3	1,876	34.7	750	13.9
52.01/52.01	1990	7,147	N/A	1,789	25.0	1,009	14.1
	2000	7,926	31.4	2,640	33.3	1,097	13.8
Combined Census Tracts	1990	62,211	N/A	16,698	26.8	5,991	9.6
	2000	66,773	28.6	22,643	33.9	6,585	9.9
Fresno County	1990	667,490	31.1	209,036	31.3	69,269	10.4
	2000	799,407	29.9	256,425	32.1	79,209	9.9

Note: [1] Year 1990 Census Tract 30 is geographically equivalent to year 2000 Census Tracts 30.01 and 30.02
[2] Year 1990 Census Tract 53.03 is geographically equivalent to year 2000 Census Tracts 53.04 and 53.05
[3] Year 1990 Census Tract 32 is geographically equivalent to year 2000 Census Tracts 32.01 and 32.02
Source: U.S. Census Bureau, 1990 and 2000

Income and Housing Distribution

As shown in **Table 1.2-9**, median household income levels for the Generalized Study Area households increased for all census tracts from 1990 to 2000 except for Census Tract 52.02, which experienced a slight decrease of $502. The most significant median household income gain was experienced in Census Tract 58.03 at $12,476. All census tracts in the Generalized Study Area had median household incomes

well above the U.S. Department of Housing and Urban Development, Health and Human Services Poverty Guidelines for a family of four in 1990 and 2000.

The number of residents considered to be below the poverty level is another indicator of income distribution. Overall, the Generalized Study Area census tracts experienced a moderate gain in the number of people below the poverty level from 1990 to 2000, at 5.2 percent. However, the largest gain was experienced in Census Tract 52.02, at 21.9 percent, followed by year 1990 Census Tract 32 and its year 2000 geographical equivalent (Census Tracts 32.01 and 32.02) with a 10.6 percent increase.

Table 1.2-9 also shows the region's housing distribution. Census Tract 31.01 had by far the largest number of housing units in 1990 and 2000. Only Census Tract 58.03 and Census Tract 53.02 showed minor increases in the number of housing units. This is primarily attributed to the nature of the urbanized area.

Anticipated Population Changes

As previously mentioned, the Fresno COG forecasts population and land use changes, which are critical assumptions used in modeling transportation impacts and air quality conformity. The approved forecasts begin in 2005 and extend to the year 2025, in 5-year increments. The methodology for the Fresno COG 2025 projections incorporates regional growth targets provided by the Center for the Continuing Study of the California Economy. Year 2005 is the socioeconomic baseline. For population, the baseline starts with the number of persons and their spatial location as recorded in the 2000 Census. In consultation with the Fresno COG and their member jurisdictions, staff endeavored to use all available official planning documents to estimate the location and amount of growth from 2000 to 2005. The Fresno COG does not use U.S. Census Bureau geographies below City/County limit lines to forecast population and land use changes due to the fact that those geographies tend to change each decennial census, especially on the fringes of the developed area. Similar to other MPOs across the U.S., the Fresno COG has developed sub-regions called Traffic Analysis Zones (TAZs) for forecasting purposes. The TAZs selected for analysis closely resemble the census tract boundaries of the Generalized Study Area. While these sub-regions are loosely based on the U.S. Census Bureau geographies, they allow for greater forecasting accuracies over multi-year periods. The forecasts are consistent with regional targets for the given year, and linear projections relative to the shares of growth were applied for the region.

Also previously mentioned, California DOF develops population, housing, and labor force estimates, which are used for budgetary and economic forecasts for the state and counties. However, given the fact that DOF does not have detailed information in the Generalized Study Area, as well as Fresno COG's intimate knowledge of the Fresno region, DOF's forecast numbers were not utilized in this portion of the analysis.

Table 1.2-9: Generalized Study Area Income and Housing Distribution

Census Tract	Year	Income Distribution				Housing Distribution			
		Total Individuals	Median Household Income	Individuals with Income Below Poverty Level	% of Individuals Below Poverty Level	Housing Units	Occupied Housing	Vacant Housing	% Vacant
58.03/58.03	1990	7,003	$34,111	757	10.9	2,189	2,171	18	0.8
	2000	7,712	$46,587	821	10.7	2,387	2,298	89	3.7
31.01/31.01	1990	10,336	$27,692	1,406	13.6	4,396	4,194	202	4.6
	2000	9,088	$30,880	1,481	16.4	3,868	3,679	189	4.9
[1] 30/30.01 & 30.02	1990	7,687	$24,455	1,171	15.8	2,976	2,828	148	5.0
	2000	9,091	$29,196	2,101	23.1	2,969	2,793	176	5.9
[2] 53.03/53.04 & 53.05	1990	8,617	$24,088	2,189	25.6	3,567	3,322	245	6.9
	2000	8,634	$29,100	2,015	23.5	3,469	3,290	179	6.1
52.02/52.02	1990	3,595	$22,460	536	15.1	1,371	1,303	68	5.0
	2000	3,661	$21,958	1,355	37.0	1,253	1,177	76	6.1
[3] 32/32.01 & 32.02	1990	7,978	$25,466	1,295	16.3	3,184	3,103	81	2.5
	2000	10,300	$29,142	2,464	23.9	3,199	2,959	240	7.5
53.02/53.02	1990	4,622	$24,737	669	14.5	2,116	1,986	130	6.1
	2000	4,957	$28,931	1,124	22.7	2,113	2,020	93	4.4
53.01/53.01	1990	5,226	$27,956	814	15.6	1,950	1,912	38	1.9
	2000	5,404	$31,918	920	17.0	1,933	1,875	58	3.0
52.01/52.01	1990	7,147	$24,196	1,166	16.3	3,081	2,963	118	3.8
	2000	7,926	$31,131	1,954	24.7	3,105	2,879	226	7.3
Combined Census Tracts	1990	62,211	$26,129	10,003	16.1	24,830	23,782	1,048	4.2
	2000	66,773	$30,983	14,235	21.3	24,296	22,970	1,326	5.5
Fresno County	1990	667,490	$26,377	140,510	21.1	235,563	220,933	14,630	6.2
	2000	799,407	$34,725	179,085	22.4	270,767	252,940	17,827	6.6
1989 Health and Human Services Poverty Guidelines for a family of 4 = $12,100									
1999 Health and Human Services Poverty Guidelines for a family of 4 = $16,700									

Note: [1] Year 1990 Census Tract 30 is geographically equivalent to year 2000 Census Tracts 30.01 and 30.02
[2] Year 1990 Census Tract 53.03 is geographically equivalent to year 2000 Census Tracts 53.04 and 53.05
[3] Year 1990 Census Tract 32 is geographically equivalent to year 2000 Census Tracts 32.01 and 32.02
Source: U.S. Census Bureau, 1990 and 2000

Figure 1.2-3 shows the TAZ boundaries within the Generalized Study Area. As seen in **Table 1.2-10**, Fresno COG predicts modest overall population growth for the Generalized Study Area from 2005 to 2025 at nearly 5 percent. Significant growth over the 20-year time frame is expected in the following TAZs: 1051, 1052, 1054, 1058, 1060, 1083, 1090, 1619, 1679, 1680, 1682, 1683, 1684, 1685, 1686, and

1703, which are generally located northwest and southeast of FAT. Growth rates for these TAZs were around 20 percent or higher, with some TAZs having growth rates topping out at nearly 86 percent (TAZs 1685 and 1686). Significant declines were forecast from 2005 to 2025 in the following TAZs: 184, 1415, 1416, 1417, 1625, and 1681, which are generally located southeast of FAT. Decreases for these TAZs of 15 percent or greater were experienced, with some TAZs declining 60 percent or more (TAZs 1416 and 1625). TAZ 1622 is expected to loose all of its population by the year 2025. Of note, the following TAZs were removed from the analysis as they contained no population information: TAZs 185 977 978 995 1078 1079 1080 1081 1089 1412 1414 1620 1621 1623 1624 1693.

1.2.1.3 Detailed Study Area

Unlike the Generalized Study Area, census tract boundaries and TAZ boundaries were not used as the basis for depicting socioeconomic existing conditions in the Detailed Study Area. This is attributed to the fact that no residences are located here, as most of this area consists of airport-related or agriculture land uses. Therefore depicting the existing social characteristics of residents is not applicable in these areas. As seen on **Figures 1.2-1, 1.2-2**, and **1.2-3**, the census tract boundaries and TAZ boundaries do not correlate to the Detailed Study Area boundary. The total land area is approximately 1,235 acres.

1.2.2 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies like FAA to consider environmental justice (EJ) issues in their policies, activities, and procedures. A Presidential Memorandum directed to the heads of all departments and agencies accompanied Executive Order (EO) 12898. The memorandum states "each federal agency shall analyze the environmental effects, including human health, economic, and social effects, of federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA." The memorandum particularly emphasizes the importance of NEPA's public participation process, directing that "each federal agency shall provide opportunities for community input in the NEPA process." Agencies are further directed to "identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents, and notices." The FAA, a division of the U.S. Department of Transportation (DOT), is included in DOT Order 5610.2 *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (*62 Federal Register 18377 et seq., April 15, 1997).* In August 2000, FAA published the *Environmental Justice Q&A: Interim FAA Policy Guidance* that discusses how FAA can integrate EJ in the NEPA process. Potential EJ areas are identified in the alternatives screening process to ensure that these communities have access to concise and clear information sufficient to effectively participate in the public involvement process. This helps to ensure that these communities are not disproportionately affected by a project. EJ in transportation projects is about striving to ensure that minority and low-income populations get an equal share of the transportation benefits without carrying the brunt of the burden.

Table 1.2-10: Generalized Study Area Population Forecasts

TAZ	2005 Population	2010 Population	2005 to 2010 % Change	2015 Population	2010 to 2015 % Change	2020 Population	2015 to 2020 % Change	2025 Population	2020 to 2025 % Change
173	1,376	1,609	16.9%	1,845	14.7%	2,093	13.4%	2,184	4.3%
183	710	710	0.0%	710	0.0%	710	0.0%	710	0.0%
184	30	24	-20.0%	18	-25.0%	12	-33.3%	5	-58.3%
714	1,049	1,161	10.7%	1,274	9.7%	1,392	9.3%	1,645	18.2%
717	2,031	2,032	0.0%	2,033	0.0%	2,035	0.1%	2,037	0.1%
720	2,723	2,723	0.0%	2,723	0.0%	2,723	0.0%	2,723	0.0%
929	571	571	0.0%	571	0.0%	571	0.0%	571	0.0%
930	1,788	1,788	0.0%	1,788	0.0%	1,788	0.0%	1,788	0.0%
979	1,312	1,324	0.9%	1,337	1.0%	1,350	1.0%	1,365	1.1%
980	534	546	2.2%	557	2.0%	570	2.3%	583	2.3%
981	812	867	6.8%	922	6.3%	980	6.3%	1,044	6.5%
1038	2,036	2,036	0.0%	2,036	0.0%	2,036	0.0%	2,036	0.0%
1039	2,017	2,019	0.1%	2,021	0.1%	2,023	0.1%	2,025	0.1%
1040	1,452	1,464	0.8%	1,477	0.9%	1,490	0.9%	1,504	0.9%
1041	2,643	2,673	1.1%	2,704	1.2%	2,736	1.2%	2,771	1.3%
1042	1,191	1,191	0.0%	1,191	0.0%	1,191	0.0%	1,191	0.0%
1043	1,458	1,461	0.2%	1,464	0.2%	1,468	0.3%	1,471	0.2%
1044	1,646	1,646	0.0%	1,646	0.0%	1,646	0.0%	1,646	0.0%
1045	2,149	2,149	0.0%	2,149	0.0%	2,149	0.0%	2,149	0.0%
1046	406	406	0.0%	406	0.0%	406	0.0%	406	0.0%
1047	760	765	0.7%	771	0.8%	777	0.8%	784	0.9%
1048	731	734	0.4%	737	0.4%	741	0.5%	744	0.4%
1049	1,554	1,554	0.0%	1,554	0.0%	1,554	0.0%	1,554	0.0%
1050	2,009	2,032	1.1%	2,056	1.2%	2,081	1.2%	2,108	1.3%
1051	516	670	29.8%	825	23.1%	988	19.8%	1,167	18.1%
1052	48	59	22.9%	70	18.6%	82	17.1%	94	14.6%
1053	1,812	1,815	0.2%	1,818	0.2%	1,821	0.2%	1,824	0.2%
1054	1,236	1,442	16.7%	1,653	14.6%	1,872	13.2%	2,341	25.1%
1055	1,880	1,940	3.2%	2,001	3.1%	2,065	3.2%	2,202	6.6%
1056	3,667	3,667	0.0%	3,667	0.0%	3,667	0.0%	3,667	0.0%
1058	281	480	70.8%	681	41.9%	892	31.0%	1,122	25.8%
1060	202	319	57.9%	438	37.3%	563	28.5%	700	24.3%
1066	1,918	1,922	0.2%	1,926	0.2%	1,930	0.2%	1,934	0.2%
1069	1,740	1,760	1.1%	1,781	1.2%	1,802	1.2%	1,826	1.3%
1072	896	896	0.0%	896	0.0%	896	0.0%	896	0.0%
1073	567	569	0.4%	571	0.4%	573	0.4%	576	0.5%
1074	1,000	1,001	0.1%	1,001	0.0%	1,002	0.1%	1,003	0.1%

Table 1.2-10: Generalized Study Area Population Forecasts (Continued)

TAZ	2005 Population	2010 Population	2005 to 2010 % Change	2015 Population	2010 to 2015 % Change	2020 Population	2015 to 2020 % Change	2025 Population	2020 to 2025 % Change
1075	1,099	1,099	0.0%	1,099	0.0%	1,099	0.0%	1,099	0.0%
1076	2,236	2,238	0.1%	2,240	0.1%	2,243	0.1%	2,245	0.1%
1077	1,590	1,595	0.3%	1,600	0.3%	1,605	0.3%	1,610	0.3%
1083	48	80	66.7%	113	41.3%	147	30.1%	185	25.9%
1088	1,280	1,299	1.5%	1,318	1.5%	1,338	1.5%	1,380	3.1%
1090	494	591	19.6%	689	16.6%	792	14.9%	905	14.3%
1091	1,072	1,073	0.1%	1,074	0.1%	1,076	0.2%	1,078	0.2%
1413	984	990	0.6%	997	0.7%	1,003	0.6%	1,011	0.8%
1415	6	5	-16.7%	3	-40.0%	2	-33.3%	1	-50.0%
1416	39	31	-20.5%	23	-25.8%	15	-34.8%	6	-60.0%
1417	211	376	78.2%	542	44.1%	716	32.1%	907	26.7%
1434	991	1,029	3.8%	1,066	3.6%	1,106	3.8%	1,149	3.9%
1435	1,053	1,062	0.9%	1,072	0.9%	1,082	0.9%	1,093	1.0%
1436	1,802	1,825	1.3%	1,848	1.3%	1,873	1.4%	1,899	1.4%
1437	1,638	1,652	0.9%	1,665	0.8%	1,679	0.8%	1,695	1.0%
1616	684	690	0.9%	696	0.9%	702	0.9%	709	1.0%
1619	401	477	19.0%	554	16.1%	636	14.8%	724	13.8%
1622	2	2	0.0%	1	-50.0%	1	0.0%	0	-100.0%
1625	7	6	-14.3%	4	-33.3%	3	-25.0%	1	-66.7%
1679	216	272	25.9%	329	21.0%	388	17.9%	453	16.8%
1680	180	233	29.4%	287	23.2%	343	19.5%	405	18.1%
1681	33	27	-18.2%	22	-18.5%	16	-27.3%	9	-43.8%
1682	311	505	62.4%	700	38.6%	905	29.3%	1,130	24.9%
1683	347	592	70.6%	839	41.7%	1,099	31.0%	1,384	25.9%
1684	101	158	56.4%	215	36.1%	275	27.9%	342	24.4%
1685	498	927	86.1%	1,361	46.8%	1,818	33.6%	2,316	27.4%
1686	470	874	86.0%	1,282	46.7%	1,712	33.5%	2,181	27.4%
1703	13	25	92.3%	36	44.0%	48	33.3%	74	54.2%
Com-bined TAZs	66,557	69,758	4.8%	72,993	4.6%	76,397	4.7%	80,387	5.2%
Fresno County	883,650[1]	949,961[2]	7.5%	N/A	N/A	1,114,654[2]	17.3%	N/A	N/A

Notes: [1] DOF E-1: State/County Population Estimates
[2] DOF P-1: State/County Population Projections
Source: Fresno COG, 2006

EO 12898 was designed to supplement Title VI of the Civil Rights Act of 1964, and the resulting regulations for the U.S. DOT implementing this Act. Title VI prohibits discriminatory practices in programs receiving federal funding (U.S. DOT 1994). In addition, EO 12898 is supplemented by more than 30 federal statutes, regulations, executive orders, and directives regarding nondiscrimination.

The racial, ethnic, and low-income characteristics of the Generalized Study Area are discussed above in **Section 1.2.1.2**. There are no residents living within the Detailed Study Area. The Generalized Study Area minority population was 26.1 percent in 1990 and 46.5 percent in 2000, as compared to Fresno County, which was 36.5 percent in 1990 and 45.9 percent in 2000. Both geographic areas experienced moderate diversification over the 10-year period. The Generalized Study Area had median household incomes well above the U.S. Department of Housing and Urban Development, Health and Human Services Poverty Guidelines for a family of four in 1990 and 2000. However, the Generalized Study Area experienced a moderate gain in the number of people below the poverty level from 1990 to 2000, from 16.2 percent to 21.4 percent, respectively. Similar percentages were seen in Fresno County at 16.0 percent in 1990 and 19.5 percent in 2000 in terms of the number of people below the poverty level.

The objective of this analysis is to determine whether there would be a disproportionately high adverse impact on minority and low-income populations and households in accordance with EO 12898 and the DOT Order 5610.2. The EJ section examines the racial and income characteristics of the population affected by aircraft noise, residential relocations, and property acquisitions.

1.2.3 Children's Health and Safety

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 21, 1997), requires federal agencies to make it a high priority to identify and assess environmental health and safety risks resulting from policies, programs, activities, and standards that may disproportionately affect children. As shown previously, the Generalized Study Area has a similar percentage of children under 18 as compared to the Six-County Socioeconomic Study Area, but slightly higher than California or the United States. Schools and daycare centers are locations where the potential for a child to be exposed to environmental health risks is increased, because a higher concentration of children are located in one place during the day.

There are three Fresno Unified School District facilities and one private school in the Generalized Study Area: Viking Elementary is located at 4251 North Winery Avenue, Thomas Elementary is located at 4444 North Millbrook Avenue, Scandinavian Middle School is located at 3216 North Sierra Vista Avenue, and Fresno Adventist Academy is located at 5397 East Olive Avenue. All four schools are partially located within the Generalized Study Area (CNEL 65 dB contour) on the north-central, northwest, and south-central sides of FAT, respectively. Scandinavian Middle School is the closest facility to FAT at approximately 1000 feet to the northwest, near the North Sierra Vista Avenue/North Chestnut Avenue intersection. There is only one daycare center located within the Generalized Study Area. Howell Day Care is located at 4578 East Ashcroft Avenue, which is located northwest of FAT. However, there are no schools or daycare centers located within the Detailed Study Area.

APPENDIX E
AIR QUALITY

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

AIR QUALITY

1.0 AFFECTED ENVIRONMENT

1.1 STUDY METHODS

The focus of the air quality analysis is on U.S. EPA criteria air pollutants, including CO, NO_x, sulfur dioxide (SO_2), and PM_{10}/$PM_{2.5}$. Ozone-forming emissions were addressed through the analysis of volatile organic compounds (VOC), which are also known as reactive organic gases (ROG) and NO_x. Lead (Pb) was not included in the emission inventory calculations because: (1) the Fresno-Clovis area is in attainment for Pb, and (2) since the prohibition of Pb as an additive in liquid fuels, Pb has ceased to be a major transportation related pollutant. A qualitative evaluation of hazardous (or "toxic") air pollutants (HAPs) was also performed.

1.2 EXISTING ENVIRONMENTAL CONDITIONS

1.2.1 Introduction

The Generalized Study Area is located in Fresno County, which is within the San Joaquin Valley Air Basin (SJVAB), an 8-county area in central California that includes the entire counties of Fresno, Kings, Madera, Merced, Tulare, San Joaquin, Stanislaus, and the northern portion of Kern County. Federal, state, and local agencies share the regulation and management of ambient air quality conditions. Under the National Environmental Policy Act (NEPA), the Federal Aviation Administration (FAA) is responsible for the assessment of air quality impacts associated with airports as well as compliance with the General Conformity Rule (U.S. EPA, 1993) under the Clean Air Act (CAA) (U.S. Congress, 1990). **Table 1.2-1** provides a summary of the agencies and their roles and responsibilities in the Generalized Study Area.

As discussed above, a variety of federal, state, and local regulations are used to protect and manage air quality conditions in Fresno County and the Fresno-Clovis area. Based on these regulations, the criteria and standards described below were used to evaluate the potential air quality impacts in this Draft EA/EIR. U.S. EPA has established the NAAQS to protect public health, the environment, and the quality of life from the detrimental effects of air pollution. The standards have been set for the following criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and sulfur oxides (SO_x). Criteria air pollutants are the six air pollutants for which the U.S. EPA has established NAAQS based on health criteria.

Table 1.2-1: Agencies Involved in the FAT MP EA/EIR Air Quality Assessment

Agency	Roles and Responsibilities
U.S. Environmental Protection Agency (U.S. EPA)	*Federal agency* – Sets national clean air policies under the CAA; promulgates the National Ambient Air Quality Standards (NAAQS); and reviews and approves State Implementation Plans (SIPs). Also regulates aircraft emissions. (All of California is within U.S. EPA Region 9, headquarters are in San Francisco.)
Federal Aviation Administration (FAA)	*Federal agency* – Responsible for Environmental Assessment under NEPA for the Proposed Project and compliance with the General Conformity Rule of the CAA. (Offices are located in San Francisco and Los Angeles.)
California Air Resources Board (CARB)	*State agency* – Establishes state-wide clean air policies and rules; promulgates the California Ambient Air Quality Standards (CAAQS), regulates mobile source emissions (i.e., motor vehicles); and conducts ambient air monitoring throughout California. Also involved in the preparation of state and regional SIPs. (Headquarters are located in Sacramento.)
San Joaquin Valley Air Pollution Control District (SJVAPCD)	*Regional agency* – Issues operating permits; monitors ambient air quality; develops and enforces local air quality rules and regulations; develops air quality plans, implements control strategies; and prepares periodic emissions inventories under the Federal and State CAA. (Office is located in Fresno.)
The Council of Fresno County Governments (Fresno COG)	*Local agency* – The Metropolitan Planning Organization (MPO) responsible for regional transportation planning activities related to air quality. (Office is located in Fresno.)

1.2.2 Federal Standards and Criteria

The federal standards and criteria that apply to the Proposed Project include demonstrating compliance with the NAAQS and the *de minimis* thresholds listed in the General Conformity Rule. The NAAQS and CAAQS are listed in **Table 1.2-2.**

Table 1.2-2: National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	Federal Standards[2,3]
Ozone (O_3)	1 Hour[4]	0.09 ppm (180 μg/m^3)	0.12 ppm (235 μg/m^3)
	8 Hour[5]	0.07 ppm (137 μg/m^3)	0.08 ppm (157 μg/m^3)
Particulate Matter (PM_{10})	24 Hour	50 μg/m^3	150 μg/m^3
	Annual	30 μg/m^3	50 μg/m^3
Fine Particulate Matter ($PM_{2.5}$) [5]	24 Hour	No Separate State Standard	65 μg/m^3
	Annual	12 μg/m^3	15 μg/m^3
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide (NO_2)[7]	Annual	----	0.053 ppm (100 μg/m^3)
	1 Hour	0.25 ppm (470 μg/m^3)	----
Sulfur Dioxide (SO_2)	Annual	----	0.030 ppm (80 μg/m^3)
	24 Hour	0.04 ppm (105 μg/m^3)	0.14 ppm (365 μg/m^3)
	3 Hour	----	0.5 ppm (1300 μg/m^3)
	1 Hour	0.25 ppm (655 μg/m^3)	----
Lead (Pb)	30 Day Average	1.5 μg/m^3	----
	Calendar Quarter	----	1.5 μg/m^3
Visibility Reducing Particles[6]	8 Hour	See footnote (6)	No Federal Standards
Sulfates	24 Hour	25 μg/m^3	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m^3)	

Notes: ppm = parts per million μg/m^3 = micrograms per cubic meter

1 California standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, particulate matter and visibility reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National Standards (other than ozone, PM, and those based on annual averages) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration is above 150 μg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations averaged over three years, are equal to or less than the standard.

3 All standards, except 3-hour SO_2, are National Primary Standards, which is the levels of air quality necessary, with an adequate margin of safety to protect public health. The 3-hour SO_2 standard is a National Secondary Standard: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

4 U.S. EPA revoked the National 1-hour ozone standard on June 15, 2005. However, U.S. EPA required that all emissions reduction measures, including the State Implementation Plan and the General Conformity Regulations based on the 1-hour ozone standard, must remain in place until the National 8-hour ozone standard is met.

5 U.S. EPA promulgated new Federal 8-hour ozone and fine particulate matter standards on July 18, 1997. California adopted a new state 8-hour ozone standard effective May 17, 2006.

6 Extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.

7 The Nitrogen Dioxide ambient air quality standard was amended on February 22, 2007, to lower the 1-hr standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. These changes become effective after regulatory changes are submitted and approved by the Office of Administrative Law, expected later this year.

Source: U.S. Code of Federal Regulations, Title 40, Part 50, Section 121 and Table of Standards, Title 17, Section 70200, California Code of Regulations.

Based on the attainment/nonattainment status of an area (see **Section 1.2.5**), pollutant specific emissions thresholds apply as described in the Federal General Conformity Rule (40 CFR 93.153). These *de minimis* thresholds are listed in **Table 1.2-3**.

Table 1.2-3: General Conformity *De Minimis* Levels in the San Joaquin Valley Nonattainment Area

Pollutant	*De Minimis* Level (tons per year)
CO	100
VOC (as ozone precursor)	50[a]
NO_x (as ozone precursor)	50[a]
PM_{10}	70
$PM_{2.5}$ (direct emissions)	100
SO_2 (as $PM_{2.5}$ precursor)	100

Note: VOC = volatile organic compounds
NO_x = Nitrogen oxides

a. The de minimis values for NOx and VOC for the 1-hour ozone standard could be reduced to 10 tons per year (tpy) based on an Extreme Nonattainment determination.

Source: 40 Code of Federal Regulations Parts 6, 51, and 93, November 30, 1993; 40 CFR Part 52, April 19, 1995; 40 CFR Parts 51 and 93, July 17, 2006.

1.2.3 California Standards and Criteria

The California standards and criteria that apply to the Proposed Project include demonstrating compliance with CAAQS and the Thresholds of Significance as described in the SJVAPCD's Environmental Review Guidelines. The CAAQS are listed in **Table 1.2-2** and the applicable Thresholds of Significance are listed in **Table 1.2-4**.

Table 1.2-4: SJVAPCD Thresholds of Significance[1]

Pollutant	Threshold Level (tons per year)
ROG	10
NOx	10
PM_{10}	Compliance with Control Measures in Tables 6-2 and 6-3 of the GAMAQI[1]

Note: ROG = reactive organic gases
NO_x = Nitrogen oxides

[1] Thresholds of Significance are extracted from the following publication: *Guide for Assessing and Mitigating Air Quality Impacts* (SJVAPCD, 2002a).

1.2.4 Air Monitoring Data

Both the SJVAPCD and CARB operate several ambient air monitoring sites in Fresno County as part of their state and local air monitoring programs. These stations are intended to sample and record outdoor levels of the U.S. EPA criteria air pollutants discussed above. Four air monitoring stations are located within 5 miles of FAT. **Table 1.2-5** contains the detailed information and data from these monitoring sites

including the site locations, distance, and direction from FAT, the pollutants measured, and the highest recorded levels in 2005. No air monitoring stations are located directly on or adjacent to FAT. Ambient air quality monitors allow the managing air agency to determine compliance with NAAQS and to evaluate the effectiveness of pollution control measures.

Table 1.2-5: Fresno County 2005 Air Quality Monitoring Data Summary

Site No.	Monitoring Station	Distance (miles) and Direction from FAT	Pollutants Measured	Highest Recorded Concentrations
1	908 N. Villa Ave., Clovis	3.0 North	CO	1-Hour: 3.1 ppm 8-Hour: 2.3 ppm
			NO_2	1-Hour: 0.079 ppm Annual: 0.014 ppm
			O_3	1-Hour: 0.127 ppm 8-Hour: 0.096 ppm
			PM_{10}	24-Hour: 87 µg/m^3 Annual: 34 µg/m^3
			$PM_{2.5}$	24-Hour: 60 µg/m^3 Annual: 11.8 µg/m^3
2	3425 N. First St., Fresno	3.0 West	CO	1-Hour: 4.0 ppm 8-Hour: 3.0 ppm
			NO_2	1-Hour: 0.084 ppm Annual: 0.017 ppm
			O_3	1-Hour: 0.134 ppm 8-Hour: 0.111 ppm
			PM_{10}	24-Hour: 106 µg/m^3 Annual: 33 µg/m^3
			$PM_{2.5}$	24-Hour: 53 µg/m^3 Annual: 12.9 µg/m^3
3	Hamilton & Winery, Fresno	3.5 South	$PM_{2.5}$	24-Hour: 58 µg/m^3 Annual: 13.3 µg/m^3
4	4706 E. Drummond St., Fresno	5.0 SSW	CO	1-Hour: 2.8 ppm 8-Hour: 2.3 ppm
			NO_2	1-Hour: 0.077 ppm Annual: 0.017 ppm
			O_3	1-Hour: 0.119 ppm 8-Hour: 0.091 ppm
			PM_{10}	24-Hour: 102 µg/m^3 Annual: 39 µg/m^3

Note: ppm = parts per million µg/m^3 = micro grains per cubic meter

Source: U.S. EPA AirData, 2006.

Based on these data, the highest recorded 8-hour ozone concentration in 2005 was 0.111 ppm, recorded at the First Street site. This value is above the ozone NAAQS and is considered to be a violation of the standard

since the 3-year design value (2003–2005) is above the standard level of 0.08 ppm. All of the measured concentrations in the vicinity of FAT for 2005 for all other criteria pollutants were below their respective standards, including $PM_{2.5}$, which showed a maximum annual concentration of 13.3 µg/m^3 at the Hamilton & Winery monitor location in 2005. This concentration is below the annual $PM_{2.5}$ standard of 15 micrograins per cubic meter (µg/m^3).

1.2.5 Attainment/Non-Attainment Status

Based on air monitoring data and in accordance with the CAA Amendments of 1977, all areas within the U.S. are designated with respect to NAAQS as "attainment, nonattainment, maintenance, or unclassifiable." An area with air quality better than the NAAQS is designated as attainment, while an area with air quality worse than the NAAQS is designated as nonattainment. An area may be designated as unclassifiable when there is a temporary lack of data on which to form a basis of attainment status. Nonattainment areas are further classified as extreme, severe, serious, moderate, and marginal by the degree of non-compliance with the NAAQS. Finally, areas that are reclassified from nonattainment to attainment are designated as maintenance.

The SJVAB has been designated by U.S. EPA as a Serious Ozone Nonattainment Area for the 8-hour ozone standard. Under the Federal CAA, this designation signifies that violations of NAAQS for this pollutant have occurred within this region, and that the area must be brought into attainment with the standard by June 2013. This area had previously been designated as an Extreme Ozone Nonattainment Area for the 1-hour ozone standard. However, with U.S. EPA's revocation of the 1-hour ozone standard in June 2005, this federal designation no longer applies.

Fresno County (and the entire SJVAB) is also designated as a Serious Nonattainment Area for PM_{10}, a Nonattainment Area for the $PM_{2.5}$, and attainment or unclassified for the other U.S. EPA criteria air pollutants for which there are NAAQS. The Fresno-Clovis urbanized area, which includes the Generalized Study Area, is designated as Attainment/Maintenance for CO. On the state level, the Fresno-Clovis area is in attainment of all of the CAAQS, with the exception of ozone and particulate matter. The current attainment/nonattainment designations for Fresno County are summarized in **Table 1.2-6**.

1.2.6 State Implementation Plans

Because portions of the San Joaquin Valley area did not meet the 1-hour ozone and PM_{10} NAAQS, the SJVAPCD developed a SIP to help ensure that violations of the standards would no longer occur. They also have a Maintenance Plan for CO. The SIP is the cumulative record of all air pollution control strategies, emission budgets, and timetables implemented or adopted by government agencies within California to bring nonattainment areas into compliance with NAAQS and to keep maintenance areas in compliance. Air quality in the San Joaquin Valley has improved greatly in the past few years as air quality plans and regulations have been adopted and implemented.

Table 1.2-6: Attainment/Nonattainment Designations for Fresno County

Pollutant	Federal Designation	State Designation
Carbon monoxide (CO)	Attainment/Maintenance	Attainment
Lead	Attainment	Attainment
Nitrogen oxides (NOx)	Attainment	Attainment
Ozone (O_3) (1 hour)	Nonattainment (Extreme) Note: Federal standard revoked June 15, 2005.	Nonattainment (Severe)
Ozone (O_3) (8 hour)	Nonattainment (Serious)	—
Particulate matter (PM_{10})	Nonattainment (Serious)	Nonattainment (Serious)
Particulate matter ($PM_{2.5}$)	Nonattainment	Nonattainment
Sulfur oxides (SO_x)	Attainment	Attainment
Sulfates	—	Attainment
Hydrogen Sulfide	—	Unclassified[1]
Visibility Reducing Particles	—	Unclassified[1]

Note: [1] Unclassified: a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

Source: U.S. EPA, 2006 and CARB, 2006.

1.2.6.1 Particulate Matter Plans

SJVAPCD's 2006 PM_{10} Plan is a continuation of the San Joaquin Valley's PM_{10} air quality planning activities and, as such, reflects information on pollutant emissions, behavior, and control. The 2006 PM_{10} Plan was adopted in February 2006 and has been submitted to CARB. It is the SIP revision required as a condition of U.S. EPA approval of the 2003 PM_{10} Plan, which became effective June 25, 2004.

1.2.6.2 Ozone Plans

On April 16, 2004 U.S. EPA issued a final rule classifying the SJVAB as Extreme Nonattainment for 1-Hour Ozone, effective May 17, 2004 (69 CFR 20550). Under this rule, SJVAB's attainment date is November 15, 2010. SJVAPCD released the 2004 SIP for ozone in the San Joaquin Valley on September 10, 2004 and adopted it at a hearing on October 8, 2004. CARB approved the 2004 Ozone SIP at a public meeting on October 28, 2004, and submitted it to the U.S. EPA for federal approval on November 15, 2004. This new plan identifies the clean air strategies needed to bring the San Joaquin Valley into attainment with the federal 1-hour ozone standard by November 2010. It builds on already adopted controls and the strategies in the 2003 SIP for inhalable particulate matter (PM_{10}), and then adds new ozone SIP commitments that provide the last increment of reductions to meet the 1-hour standard. The U.S. EPA revoked the National 1-hour ozone standard on June 15, 2005 and then in 2007 the D.C. Circuit Court directed the U.S. EPA to reinstate the nonattainment fee provisions for the 1-hour ozone standard, even though the standard itself was revoked. The District has submitted adopted Rule 3170 through CARB to the U.S. EPA, though the U.S. EPA has not yet acted on the rule. Should the San Joaquin Valley fail to attain the 1-hour ozone standard by November 15, 2010, the District, under the current rule, would start assessing fees in May of 2012. The District would use the funds generated by these fees to implement other air pollution control programs they have identified.

In July 1997, U.S. EPA established a new federal 8-hour ozone standard of 0.085 ppm. U.S. EPA then designated fifteen areas in California that violated the federal 8-hour ozone standard on April 15, 2004. The classification and attainment deadline for each nonattainment area is based on the severity of its ozone problem. The nonattainment area attainment deadline for the San Joaquin Valley is 2013. SIPs demonstrating attainment of the new federal 8-hour ozone standard must be adopted by the local air districts and CARB, and submitted to U.S. EPA. CARB, local air districts (including San Joaquin), and other key stakeholders are coordinating development of local SIPs through the Northern California 8-Hour Ozone SIP Working Group. The group provides a forum for the sharing of technical information and for ensuring that the SIP for each area is consistent with attainment throughout the region. The 2007 Ozone Plan was developed with numerous opportunities for the general public, environmental and community advocacy groups, and industry representatives to offer critique and suggestions. The District held a series of six Town Hall meetings throughout the Valley in the summer of 2006. Public workshops on the Draft Plan were held on October 17, 2006 and February 8, 2007. The plan was adopted at a public hearing held on April 30, 2007.

1.2.6.3 Carbon Monoxide Plans

On April 26, 1996, CARB approved the "Carbon Monoxide Redesignation Request and Maintenance Plan for Ten Federal Planning Areas" as part of the SIP for Carbon Monoxide. U.S. EPA approved this revision on June 1, 1998 and redesignated the ten areas as being in attainment. On October 22, 1998, CARB revised the SIP to incorporate the effects of the SIP to remove the wintertime oxygen requirement for gasoline in certain areas. On July 22, 2004, CARB approved an update to the SIP that shows how these areas would maintain the standard through 2018, revises emission estimates, and establishes new on-road motor vehicle emission budgets for transportation conformity purposes.

1.2.7 Transportation Conformity

Another requirement for nonattainment areas under the CAA is the formal demonstration that the surface transportation networks (including the roadway and transit systems) conform to the goals and objectives of the appropriate SIP. In the Fresno-Clovis area, the Fresno COG is the agency responsible for making this demonstration.

To meet this requirement, the Fresno COG has provided the 2005 October Air Quality Conformity Determination for the 2004/2005 through 2009/2010 Federal Transportation Improvement Program (TIP), including Amendments #1 through #15, and the Amended 2004 Regional Transportation Plan (RTP). On August 12, 2005, the Federal Highway Administration/Federal Transit Administration last issued a finding of conformity for the Amended 2004 RTP and for the Federal TIP (Fiscal Years 2004/2005 through 2009/2010), including Amendments #1 through #15. A finding of conformity for the 2004/2005 through 2009/2010 Federal TIP, including Amendments #1 through #15, and the Amended 2004 RTP is therefore supported. Amendment #15 to the 2004/2005 through 2009/2010 Federal TIP and the 2005 October Air Quality Conformity Determination were approved by the Fresno COG Policy Board on October 27, 2005. Based on the latest population, employment, and traffic assumptions and using computer modeling of traffic

and air quality conditions, the Fresno COG has demonstrated that both the Federal TIP and the RTP for Fresno County conform to the SIP. The Fresno COG completed a Conformity Determination in 2007.

1.2.8 Sources of Air Pollutant Emissions

Most airports (including FAT) generate air emissions from the following general source categories: aircraft; ground service equipment (GSE); motor vehicles traveling to, from, and moving about the airport site; fuel storage and transfer facilities; a variety of stationary sources (i.e., steam boilers, back-up generators, etc.); an assortment of aircraft maintenance activities (i.e., painting, cleaning, and repair); routine airfield, roadway, and building maintenance activities (i.e., cleaning, painting, and repair); and periodic construction activities for new projects or improvements to existing facilities. **Table 1.2-7** summarizes the sources of air emissions typically found at airports, the pollutants they emit, and their characteristics.

Table 1.2-7: Typical Airport-Related Sources of Air Pollutant Emission

Sources	Pollutants	Characteristics
Aircraft	• CO • HC • NO_x • PM • SO_2	Exhaust products of fuel combustion that vary greatly depending on aircraft engine type, power setting, and period of operation. Except for short periods of takeoff and approach, aircraft altitude precludes measurable offsite ground-level impacts.
Motor vehicles	• CO • HC • NO_x • PM • SO_2	Exhaust products of fuel combustion from passenger and employee traffic approaching, departing, and moving about the airport site. Emissions vary greatly depending on vehicle type, distance traveled, operating speed, and ambient conditions.
Ground service equipment (GSE)	• CO • HC • NO_x • PM • SO_2	Exhaust products of fuel combustion from service trucks, tow tugs, belt loaders, and other portable equipment.
Fuel storage and transfer facilities	• HC	Formed from the evaporation and vapor displacement of fuel from storage tanks, and fuel transfer facilities. Emissions vary with fuel usage, type of storage tank, refueling method, fuel type, vapor recovery, climate, and ambient temperature.
Stationary source facilities	• CO • HC • NO_x • PM • SO_2	Exhaust products of fossil fuel combustion from boilers dedicated to indoor heating requirements and emissions from incinerators used for waste reduction. Emissions are generally well controlled with operational techniques and post-burn collection methods.
Construction activities	• CO • HC • NO_x • PM • SO_2	Construction activities at airports represent temporary sources of emissions primarily associated with the exhaust from construction equipment, dust generated during construction activities and land clearing, and evaporative volatile organic compounds (VOC) from asphalt paving operations.

Note: Although there are no NAAQS for hydrocarbons (HC), they are included in this analysis as they are considered to be one of the precursors to the formation of ozone. VOC are a subset of HC.

2.0 IMPACT ASSESSMENT

2.1 METHODOLOGY

This air quality analysis was prepared in support of the Proposed Project and is consistent with the following guidelines: the 1990 CAA Amendments; NAAQS and CAAQS for criteria air pollutants; FAA Order 1050.1E CHG 1 (FAA, 2006a), *Environmental Impacts: Policies and Procedures* (Section 2, *Air Quality*); FAA Order 5050.4B (FAA, 2006b); NEPA's *Implementing Instructions for Airport Actions*; the FAA document A*ir Quality Procedures for Civilian Airports and Air Force Bases* (FAA, 1997) and its 2004 Addendum (FAA, 2004); and the requirements of the U.S. Environmental Protection Agency (U.S. EPA) Region 9. In addition, the General Conformity Rule provides *de minimis* thresholds below which project-related emissions are presumed to conform to the State Implementation Plan (SIP). The majority of the technical analyses were also accomplished using the latest version of the FAA required and U.S. EPA preferred program, the Emissions and Dispersion Modeling System (EDMS Version 4.5) (FAA, 2006c).

Consistent with *CEQA Guidelines*, this air quality analysis was also conducted following the requirements and regulations of the California CAA; California Air Resources Board (CARB); the California Air Quality Act; and SJVAPCD's *Environmental Review Guidelines* (SJVAPCD, 2000), the *Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI)* (SJVAPCD, 2002a), and GAMAQI's *Technical Document, Information for Preparing Air Quality Sections in EIRs* (SJVAPCD, 2002b).

The Proposed Project was originally planned to commence in 2006. This delay does not change the impact analysis results as there is only a minimal difference in total aircraft operations at FAT between these years (i.e., 2006 to 2009). Therefore the underlying assumptions for the studies and analyses are still valid and reliable.

Construction-related emissions inventories were prepared for each year in which construction activities were expected to occur (i.e., 2006 through 2012). The operational emissions inventories were prepared for the year 2004 (existing conditions) and two future years, the interim year 2012 and the horizon year of 2025. Note that the operational emissions analysis only includes an evaluation of aircraft operations (see below for a detailed explanation). This approach is consistent with FAA guidelines, which call for emissions inventory results coincident with (1) the year(s) of maximum project-related emissions, (2) the attainment year or furthest forecast year contained in the SIP, and (3) the SIP interim budget years (FAA, 1997).

The focus of the air quality analysis is on U.S. EPA criteria air pollutants, including CO, NO_x, sulfur dioxide (SO_2), and PM_{10}/$PM_{2.5}$. Ozone-forming emissions were addressed through the analysis of volatile organic compounds (VOC), which are also known as reactive organic gases (ROG) and NO_x. Lead (Pb) was not included in the emission inventory calculations because: (1) the Fresno-Clovis area is in attainment for Pb, and (2) since the prohibition of Pb as an additive in liquid fuels, Pb has ceased to be a major transportation related pollutant. A qualitative evaluation of hazardous (or "toxic") air pollutants (HAPs) was also performed.

2.1.1 Quantification of Construction Emissions

Construction of the Proposed Project represents temporary sources of emissions, the types and amounts of which would vary in time and by location depending on the nature of the operation, the level of activity,

and the local weather conditions. These emissions are primarily associated with the exhaust products from construction equipment; the disturbance and movement of earthen materials, various forms of solid waste and debris and building materials; and evaporative VOC/ROG from asphalt paving operations. Even though these emissions are temporary, they are potentially subject to the CAA General Conformity requirements as a "direct source" and make up part of the SIP emissions budget for the Fresno-Clovis nonattainment area. For this reason, construction-related emissions were also assessed. The list of projects in **Section 1.3** in the Draft EA/EIR were used to develop the schedule for planned construction phasing between the years 2007 and 2011. The only project extending into 2012 is the final grading and paving work associated with the secondary runway (Runway 11R/29L) and associated taxiways.

It was assumed that no construction activity emissions (and thus no air pollutant emissions) would be associated with the No-Project Alternative. For the Proposed Project, construction-related emissions were computed based on information developed specifically for this analysis about equipment type and hours of operation. These estimates were based on conservative approximations of scheduling, manpower, and equipment required for the individual projects.

2.1.2 Operational Emissions

With the exception of increased aircraft emissions due to the extension of the secondary runway, and the new taxiway extension, implementation of the Proposed Project would not increase air pollutant emissions. Because there would be no project-related emissions changes from any sources except aircraft (i.e., GSE, motor vehicles on roadways and in parking facilities, fuel storage and handling, etc.), the only emissions from routine operations that are quantified in the air quality analysis are emissions from aircraft sources occurring in the existing conditions in 2004, and the No-Project and Proposed Project Alternatives in 2011/2012 and 2025. It should be noted that 2012 is used as the operational year of the Proposed Project.

Aircraft movements that, taken together, make up the typical landing-and-takeoff cycle are divided into four modes: (1) approach, (2) taxi/idle (including delay, taxi-in, and taxi-out), (3) takeoff, and (4) climbout. A total estimated aircraft taxi time of 12.71 minutes was used for 2004 (existing conditions), and the 2012 and 2025 No-Project Alternative analyses. An estimated taxi time of 13.31 minutes was assumed for aircraft using the extended secondary runway (Runway 11R/29L) for the analyses in 2012 and 2025.

Conducting a quantitative analysis of hazardous (or "toxic") air pollutants (HAPs) emissions is not a requirement under FAA NEPA guidelines (FAA, 2006a; FAA, 1997 and 2004). However, a qualitative assessment of HAPs was prepared to comply with CEQA. Project-related emissions of HAPs are addressed qualitatively due to inherent uncertainties in the state of the science for quantifying HAPs emissions.

The No-Project and Proposed Project Alternatives considered in the 2009–2014 period, with the key exception of aircraft activities on the secondary runway (Runway 11R/29L) extension and associated taxiway construction, would not cause significant changes in the emission levels of the other potential sources of air pollutant emissions at FAT. The Proposed Project is separated into three areas: airside projects, landside projects, and other projects. Each of these projects has the potential to change emissions from the affected air pollutant emission sources due to routine operations, as described below.

2.1.2.1 Airside Projects

As identified in **Section 1.3** in the Draft EA/EIR, six airside projects are proposed. The potential changes in air pollutant emissions due to the operation of each of these projects are discussed below.

- Extension of the secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet long would not cause any increases in routine future aircraft operations. Since there would be no increase in aircraft operations, there would be no associated increases in emissions from ground support equipment (GSE), motor vehicles, or any other on-airport source of emissions. There would be some growth in aircraft emissions from the existing level of 163,971 operations in 2004 to 196,668 operations in 2025 (an increase of about 20 percent) with or without the Proposed Project in place. The project is being undertaken so that, in the event the primary runway (Runway 11L/29R) is closed for any reason (e.g., maintenance), a widened and lengthened secondary runway would provide FAT with an acceptable back-up alternative for many of the air operations that are currently conducted. This project is anticipated to meet existing demand and accommodate future growth through 2025. However, this extension may cause an increase in aircraft taxi times for those aircraft using the secondary runway. The anticipated increase in pollutant emissions due to increased taxi times during routine operations is quantified in this Draft EA/EIR, and as expected, is a very small increase compared to the existing conditions and the No-Project Alternative emissions. The existing condition comparison is relevant for the CEQA analysis only. NEPA is focused on future No Project compared to the future Proposed Project.
- Construction of a new Taxiway B14 and extension of the existing Taxiway B would not cause any changes in routine future aircraft operations. This project is being undertaken to support the operational requirements of aircraft anticipated to be using the extended secondary runway. In addition, because aircraft operations are not increased, there would be no associated increases in emissions from GSE, motor vehicles, or any other on-airport source of emissions. However, these projects may cause an increase in aircraft taxi times for those aircraft using the secondary runway and the new and extended taxiways. The increase in anticipated pollutant emissions due to the changes in aircraft taxi times during routine operations are quantified in this Draft EA/EIR, and are a very small increase over the existing conditions and the No-Project Alternative emissions.

The remaining four airside projects would not cause any change in operational emissions and are not addressed explicitly in the air quality analysis. These projects are being undertaken to support the operational requirements of aircraft anticipated to be using the extended secondary runway and include: (1) widening of the secondary runway from 100 feet to 150 feet; (2) rehabilitation of Taxiways B, B4, C, C4, Hold Pad B, and Hold Pad C; (3) rehabilitation of concourse aprons adjacent to original terminal building; and (4) relocation and rehabilitation of a portion of the airfield service road. Thus, no assessment of the emissions from these sources has been included in this analysis.

2.1.2.2 Landside Projects

Two landside projects are also proposed for the 2009–2014 projects as identified in **Section 1.3** in the Draft EA/EIR. The potential changes in air pollutant emissions due to the operation of each of these projects are discussed below.

The reconfigured parking area would not cause any increases in routine future operational emissions from motor vehicles. Due to the construction and operation of the Federal Inspections Station at FAT, coupled with two new airlines recently beginning operations, consolidation of larger employee parking area is necessary to accommodate 260 parking spaces. Additionally, in order to more effectively process Airport patrons who use the public parking lot at FAT, changes are needed to improve entry and exit flows at the Airport. The improvements will include changes to the exit lanes and replacement of the existing temporary attendant structure with a permanent structure.

This project is anticipated to meet existing demand and accommodate future growth through 2025. Reconfiguration of the employee parking lot would not increase employee motor vehicle volumes, vehicle-miles-traveled, or vehicle idling emissions. Thus, no assessment of motor vehicle emissions from the reconfigured employee parking lot is necessary.

The remaining landside project would not cause any change in operational emissions from any airport-related emission sources and are not addressed explicitly in the air quality analysis. These projects are being undertaken to improve overall efficiency and safety throughout the airport and include constructing a permanent parking attendant structure. Thus, no assessment of the emissions from these sources is necessary.

2.1.2.3 Other Projects

As also identified in **Section 1.3** of the Draft EA/EIR, two other projects are being proposed for the 2009–2014 period: (1) the acquisition of approximately 21-acres for a new storm water detention basin, and (2) storm drainage infrastructure projects associated with secondary runway/taxiway projects. Construction of the storm water detention basin is not needed at this time. The storm drainage projects are being undertaken to support the operational requirements of aircraft anticipated to be using the extended secondary runway. These two projects would not cause any change in operational emissions from any airport-related emission sources and are not addressed explicitly in the air quality analysis. Thus, no assessment of the emissions from these sources is necessary.

2.1.2.4 Summary

In summary, with the exception of increased aircraft emissions due to the extension of the secondary runway, and the new taxiway extension, implementation of the Proposed Project would not increase air pollutant emissions. Thus, since there would be no project-related emissions changes from any sources except aircraft (i.e., GSE, motor vehicles on roadways and in parking facilities, fuel storage and handling, etc.), the only emissions from routine operations that are quantified in the air quality analysis are emissions from aircraft sources occurring in the existing conditions in 2004, and the No-Project and Proposed Project Alternatives by 2014 and 2025.

2.1.3 Quantification of Aircraft Emissions

Aircraft generated emissions of CO, NO_x, PM_{10}, $PM_{2.5}$, VOC/ROG, and SO_2 are calculated using FAA's EDMS program. This model contains up-to-date emissions factors for the vast majority of aircraft at FAT,

by engine type and operational modes (e.g., take-off, climbout, approach, and taxi/idle). Annual aircraft operations and fleet mix data for 2004 (existing conditions), 2012, and 2025, for air carriers, commuter aircraft, cargo freighters, general aviation aircraft, and military aircraft were developed for the analysis, based on actual control tower data and FAA forecasts of annual operations levels.

Aircraft movements that taken together make up the typical landing-and-takeoff cycle are divided into four modes: (1) approach, (2) taxi/idle (including delay, taxi-in, and taxi-out), (3) takeoff, and (4) climbout. EDMS automatically calculates the times-in-mode (TIM) for approach, takeoff, and climbout for each aircraft based on its category (e.g., commercial, general aviation, etc.). These pre-set EDMS TIM data, which are based on U.S. EPA guidance, were used in this analysis. The aircraft taxi/idle times used in the analysis were derived from actual operational data taken for FAT as listed in the FAA's *Airline Service Quality Performance Database* (FAA, 2006d). A total estimated aircraft taxi time of 12.71 minutes was used for the 2004 (existing conditions), and the 2012 and 2025 No-Project Alternative analyses. An estimated taxi time of 13.31 minutes was assumed for aircraft using the extended secondary runway (Runway 11R/29L) for the analyses in 2012 and 2025.

For accuracy, the aircraft taxiing distances, by alternative, were based on actual and anticipated aircraft travel paths (e.g., taxiway pairs or combinations of taxiways) taken by the individual aircraft types from the secondary runway end to the terminal or air cargo facility and their return trip to the takeoff point at the end of the runway. These distances, again by alternative, were measured from scaled drawings of the FAT Airport Layout Plan (ALP). From these measurements, the aircraft taxi times for each aircraft type and runway/taxiway configuration were calculated assuming an average taxi speed of 15 miles per hour. Based upon the forecasted operational characteristics of the airport, it was not anticipated that runway, taxiway, and terminal area ground delay have a measurable effect on an average daily basis under any alternative or future-year conditions. Therefore, this component of taxi time was not added to the aircraft taxi/idle TIMs.

The most recent forecasts of future year operations at FAT by aircraft type used for the noise impact analysis were also used as the basis for the air quality analysis. Aircraft/engine combinations and individual aircraft engine emission factors were obtained from the EDMS database. The following summary tables (**Tables 2.1-1** to **2.1-3**) list the aircraft and engine type combinations used for this analysis.

Particulate emissions from jet aircraft are quantified in EDMS, while particulate emissions from turboprop and piston aircraft are not. Particulate emissions from turboprop and piston aircraft engines were calculated using the First Order Approximation procedure described in FAA's policy memorandum of May 24, 2005 (FAA, 2005b).

The following criteria were applied to evaluate the alternatives studied in detail. An alternative is considered to result in significant air quality impacts if it would:

- Create an exceedance of criteria air pollutants;
- Violate *de minimis* thresholds as outlined in the General Conformity Rule;
- Conflict with or obstruct implementation of the applicable air quality plan;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Table 21-1: 2004 Aircraft Operations by Aircraft/Engine Combination

Aircraft	Engine	LTOs	TGOs	Category	Taxi/Queue Time
**Baron58	User-Created	3,657	231	GA	12.71
**DC3	User-Created	29	0	AC	12.71
B727-200	JT8D-15	318	0	AC	12.71
B757-200	PW2037	397	0	AC	12.71
B767-200	CF6-80A2	1,350	0	AC	12.71
Cessna 172 Skyhawk	IO-360-B	1,087	7,355	GA	12.71
Cessna 208 Caravan	PT6A-114	8,597	1,839	GA	12.71
Cessna 441 Conquest2	TPE331-8	1,474	0	GA	12.71
Citation VII	TFE 731-2-2B	3,363	0	GA	12.71
Citation VII	TFE731-3	149	0	GA	12.71
CITATION X	AE3007C (Type 1)	183	0	GA	12.71
CL601-3A	CF34-3A	8,031	0	Comm	12.71
DC8	JT3D-7 SERIES	29	0	AC	12.71
DC9-30	JT8D-7B	635	0	AC	12.71
DHC-6	PT6A-20	1,981	217	Comm	12.71
EMB-120	PW118	7,206	0	Comm	12.71
F/A-18 HORNET	F404-GE-400	568	0	Mil	12.71
F-16	F100-PW-229	4,603	0	Mil	12.71
Falcon 50	TFE731-3	183	0	GA	12.71
Gulfstream V GulfV	BR700-710A1-10	3,363	0	GA	12.71
Learjet 25B	CJ610-6	3,546	0	GA	12.71
Learjet 35/36	TFE 731-2-2B	779	0	GA	12.71
MD-80-82	JT8D-217	793	0	AC	12.71
MD-80-83	JT8D-219	737	0	AC	12.71
MU-300	JT15D-4 (B,C,D)	183	0	GA	12.71
OV-10 BRONCO	T76-G-12A	28	0	Mil	12.71
Piper PA-28	IO-320-D1AD	1,834	231	GA	12.71
Rockwell Commander	IO-320-D1AD	17,596	231	GA	12.71
SD330 Sherpa	PT6A-45R	333	0	Comm	12.71
SF-340-A	CT7-5	3,287	0	Comm	12.71
Total Operations		76,319	10,104	--	--

Notes:

LTO = landing and takeoff operation.
TGO = touch and go operation.
Taxi/Queue Time = Total Taxi in and Taxi out time in minutes per operation.
** means that the aircraft is a “user defined” aircraft in EDMS.

Source: EDMS Version 4.5, August 2006

Table 2.1-2: 2012 Aircraft Operations by Aircraft/Engine Combination

Aircraft	Engine	LTOs	TGOs	Category	Taxi/Queue Time	
					2012 No-Project	2012 Build
**Baron58	User-Created	162	0	11R-Comm/GA	12.71	13.31
**Baron58	User-Created	3,563	434	Comm/GA	12.71	12.71
**DC3	User-Created	1	0	11R-GA	12.71	13.31
**DC3	User-Created	18	0	GA	12.71	12.71
A310	CF6-80A3	232	0	AC	12.71	12.71
B747-200	JT9D-7R4G2	17	0	AC	12.71	12.71
B757-200	PW2037	316	0	AC	12.71	12.71
B767-200	CF6-80A2	1,074	0	AC	12.71	12.71
Bell 206	250B17B	13	0	GA	12.71	12.71
Cessna 172 Skyhawk	IO-360-B	59	0	11R-GA	12.71	13.31
Cessna 172 Skyhawk	IO-360-B	857	13,762	GA	12.71	12.71
Cessna 208 Caravan	PT6A-114	455	0	11R-Comm/GA	12.71	13.31
Cessna 208 Caravan	PT6A-114	7,002	3,440	Comm/GA	12.71	12.71
Cessna 441 Conquest2	TPE331-8	80	0	11R-GA	12.71	13.31
Cessna 441 Conquest2	TPE331-8	1,162	0	GA	12.71	12.71
Citation VII	TFE 731-2-2B	181	0	11R-GA	12.71	13.31
Citation VII	TFE 731-2-2B	2,652	0	GA	12.71	12.71
Citation VII	TFE731-3	8	0	11R-GA	12.71	13.31
Citation VII	TFE731-3	118	0	GA	12.71	12.71
CITATION X	AE3007C (Type 1)	10	0	11R-GA	12.71	13.31
CITATION X	AE3007C (Type 1)	144	0	GA	12.71	12.71
CL601-3A	CF34-3A	162	0	11R-AC/Comm	12.71	13.31
CL601-3A	CF34-3A	9,509	0	AC/Comm	12.71	12.71
Dash 8-300	PW123	9	0	11R-Comm	12.71	13.31
Dash 8-300	PW123	435	0	Comm	12.71	12.71
DC8	JT3D-7 SERIES	1	0	11R-GA	12.71	13.31
DC8	JT3D-7 SERIES	18	0	GA	12.71	12.71
DC9-30	JT8D-7B	463	0	AC	12.71	12.71
DHC-6	PT6A-20	90	0	11R-GA	12.71	13.31
DHC-6	PT6A-20	940	434	GA	12.71	12.71
DHC-6/300	PT6A-27	1,178	0	Comm	12.71	12.71
EMB-120	PW118	121	0	11R-Comm	12.71	13.31
EMB-120	PW118	5,834	0	Comm	12.71	12.71
F/A-18 HORNET	F404-GE-400	589	0	Mil	12.71	12.71

Table 2.1-2: 2012 Aircraft Operations by Aircraft/Engine Combination (Continued)

Aircraft	Engine	LTOs	TGOs	Category	Taxi/Queue Time	
					2012 No-Project	2012 Build
F-16	F100-PW-229	4,184	0	Mil	12.71	12.71
Falcon 50	TFE731-3	10	0	11R-GA	12.71	13.31
Falcon 50	TFE731-3	144	0	GA	12.71	12.71
Gulfstream V GulfV	BR700-710A1-10	181	0	11R-GA	12.71	13.31
Gulfstream V GulfV	BR700-710A1-10	2,652	0	GA	12.71	12.71
H-2 SEASPRITE	T58-GE-8F	390	0	GA	12.71	12.71
H-3 SEA KING	T58-GE-8F	560	0	GA	12.71	12.71
Learjet 25B	CJ610-6	191	0	11R-GA	12.71	13.31
Learjet 25B	CJ610-6	2,797	0	GA	12.71	12.71
Learjet 35/36	TFE 731-2-2B	42	0	11R-GA	12.71	13.31
Learjet 35/36	TFE 731-2-2B	614	0	GA	12.71	12.71
MD-80-82	JT8D-217	647	0	AC	12.71	12.71
MD-80-83	JT8D-219	601	0	AC	12.71	12.71
MU-300	JT15D-4 (B,C,D)	10	0	11R-GA	12.71	13.31
MU-300	JT15D-4 (B,C,D)	144	0	GA	12.71	12.71
OV-10 BRONCO	T76-G-12A	2	0	11R-GA	12.71	13.31
OV-10 BRONCO	T76-G-12A	23	0	GA	12.71	12.71
Piper PA-28	IO-320-D1AD	99	0	11R-GA	12.71	13.31
Piper PA-28	IO-320-D1AD	1,447	434	GA	12.71	12.71
Rockwell Commander	IO-320-D1AD	950	0	11R-GA	12.71	13.31
Rockwell Commander	IO-320-D1AD	13,875	434	GA	12.71	12.71
SF-340-A	CT7-5	80	0	11R-Comm	12.71	13.31
SF-340-A	CT7-5	3,912	0	Comm	12.71	12.71
Shorts 360	PT6A-65AR	10	0	11R-Comm	12.71	13.31
Shorts 360	PT6A-65AR	460	0	Comm	12.71	12.71
Total Operations		71,498	18,938	--	--	--

Notes:

LTO = landing and takeoff operation.
TGO = touch and go operation.
Taxi/Queue Time = Total Taxi in and Taxi out time in minutes per operation
** means that the aircraft is a “user defined” aircraft in EDMS.

Source: EDMS Version 4.5, August 2006

Table 2.1-3: 2025 Aircraft Operations by Aircraft/Engine Combination

Aircraft	Engine	LTOs	TGOs	Category	Taxi/Queue Time	
					2025 No-Project	2025 Build
**Baron58	User-Created	243	0	11R-Comm/GA	12.71	13.31
**Baron58	User-Created	5,606	434	Comm/GA	12.71	12.71
**DC3	User-Created	22	0	GA	12.71	12.71
A310	CF6-80A3	239	0	AC	12.71	12.71
B747-200	JT9D-7R4G2	49	0	AC	12.71	12.71
B757-200	PW2037	332	0	AC	12.71	12.71
B767-200	CF6-80A2	1,134	0	AC	12.71	12.71
Bell 206	250B17B	15	0	GA	12.71	12.71
Cessna 172 Skyhawk	IO-360-B	80	0	11R-GA	12.71	13.31
Cessna 172 Skyhawk	IO-360-B	998	13,763	GA	12.71	12.71
Cessna 208 Caravan	PT6A-114	616	0	11R-Comm/GA	12.71	13.31
Cessna 208 Caravan	PT6A-114	8,350	3,440	Comm/GA	12.71	12.71
Cessna 441 Conquest2	TPE331-8	108	0	11R-GA	12.71	13.31
Cessna 441 Conquest2	TPE331-8	1,353	0	GA	12.71	12.71
Citation VII	TFE 731-2-2B	3,333	0	GA	12.71	12.71
Citation VII	TFE731-3	148	0	GA	12.71	12.71
CITATION X	AE3007C (Type 1)	182	0	GA	12.71	12.71
CL601-3A	CF34-3A	262	0	11R-AC/Comm	12.71	13.31
CL601-3A	CF34-3A	14,240	0	AC/Comm	12.71	12.71
Dash 8-300	PW123	12	0	11R-Comm	12.71	13.31
Dash 8-300	PW123	579	0	Comm	12.71	12.71
DC8	JT3D-7 SERIES	22	0	GA	12.71	12.71
DC9-30	JT8D-7B	474	0	AC	12.71	12.71
DHC-6	PT6A-20	144	0	11R-GA	12.71	13.31
DHC-6	PT6A-20	1,662	434	GA	12.71	12.71
DHC-6/300	PT6A-27	2,065	0	Comm	12.71	12.71
EMB-120	PW118	42	0	11R-Comm	12.71	13.31
EMB-120	PW118	2,027	0	Comm	12.71	12.71

Table 2.1-3: 2025 Aircraft Operations by Aircraft/Engine Combination

Aircraft	Engine	LTOs	TGOs	Category	Taxi/Queue Time	
					2025 No-Project	2025 Build
F/A-18 HORNET	F404-GE-400	579	0	Mil	12.71	12.71
F-16	F100-PW-229	4,114	0	Mil	12.71	12.71
Falcon 50	TFE731-3	182	0	GA	12.71	12.71
Gulfstream V GulfV	BR700-710A1-10	3,333	0	GA	12.71	12.71
H-2 SEASPRITE	T58-GE-8F	458	0	GA	12.71	12.71
H-3 SEA KING	T58-GE-8F	658	0	GA	12.71	12.71
Learjet 25B	CJ610-6	3,515	0	GA	12.71	12.71
Learjet 35/36	TFE 731-2-2B	772	0	GA	12.71	12.71
MD-80-82	JT8D-217	596	0	AC	12.71	12.71
MD-80-83	JT8D-219	562	0	AC	12.71	12.71
MU-300	JT15D-4 (B,C,D)	182	0	GA	12.71	12.71
OV-10 BRONCO	T76-G-12A	2	0	11R-GA	12.71	13.31
OV-10 BRONCO	T76-G-12A	27	0	GA	12.71	12.71
Piper PA-28	IO-320-D1AD	134	0	11R-GA	12.71	13.31
Piper PA-28	IO-320-D1AD	1,684	434	GA	12.71	12.71
Rockwell Commander	IO-320-D1AD	1,288	0	11R-GA	12.71	13.31
Rockwell Commander	IO-320-D1AD	16,151	434	GA	12.71	12.71
SF-340-A	CT7-5	118	0	11R-Comm	12.71	13.31
SF-340-A	CT7-5	5,792	0	Comm	12.71	12.71
Shorts 360	PT6A-65AR	19	0	11R-Comm	12.71	13.31
Shorts 360	PT6A-65AR	868	0	Comm	12.71	12.71
Total Operations		85,371	18,939	--	--	--

Notes:

LTO = landing and takeoff operation.

TGO = touch and go operation.

Taxi/Queue Time = Total Taxi in and Taxi out time in minutes per operation

** means that the aircraft is a “user defined” aircraft in EDMS.

Source: EDMS Version 4.5, August 2006

2.2 2009–2014 PROJECT FINDINGS

2.2.1.1 Operations-Related Emissions

Comparing the results of the 2004 (existing conditions) emissions inventory with the 2012 No-Project Alternative and the 2012 Proposed Project emissions, CO and VOC/ROG increase slightly while emissions of NO_x, PM_{10}, $PM_{2.5}$, and SO_2 decrease slightly. These variations in total emissions are due to two influences: (1) the number of aircraft operations decreasing from 162,745 in 2004 to 161,932 in 2012, a decrease of almost 2 percent; and (2) the mix of aircraft in the fleet changed with several new aircraft being added and several aircraft being eliminated. These changes would occur regardless of the Proposed Project. The existing condition comparison is relevant for CEQA purposes only. NEPA is focused on future No-Project compared to the future Proposed Project. Implementation of the Proposed Project would result in changes in aircraft emissions associated with aircraft using the lengthened secondary runway (Runway 11R/29L) in 2012. Compared to the 2012 No-Project Alternative emissions inventory, the emissions from the Proposed Project in 2012 would increase slightly. These slight increases are attributable to the projected potential increase in aircraft taxi times associated with the extension of the secondary runway. Mitigation measures are not required to reduce 2012 aircraft-related emissions as the anticipated increases are not anticipated to be significant. Based on the assessment presented above, the Proposed Project would not exceed any federal threshold indicating a significant air quality impact.

The recently commissioned solar power generating facility not only reduces the energy cost at FAT but also has a beneficial effect on the entire San Joaquin Valley, due to reduced hydrocarbon emissions and improved air quality. This facility is predicted to reduce 93,800 pounds of NO_x, 70,400 pounds of SO_x, and over 1 million pounds of CO_2 over the 30-year design life.

2.2.1.2 SJVAPCD Odor Threshold

With respect to the SJVAPCD Odor Threshold, a review of odor complaints filed with the SJVAPCD's Compliance Division revealed that no complaints have been filed with that agency against FAT, and no odor complaints have been filed with the City of Fresno. In addition, based on Table 4-2 of SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), SJVAPCD has not classified airports (and FAT in particular) as a source known to produce odors. With respect to project-related emissions of odorants (which are a subset of VOC/ROG), emissions of VOC/ROG in 2012 would increase by a very small amount compared to the 2004 existing conditions emissions (see **Table 2.2-2**). The existing condition comparison is relevant for CEQA purposes only. NEPA is focused on future No-Project compared to the future Proposed Project. This small increase in odorant emissions is not expected to be significant enough to cause any odor complaints. Therefore, the Proposed Project would not exceed the odor significance threshold and would not create an unavoidable significant odor impact.

2.2.1.3 Emissions of Hazardous Air Pollutants

Emissions of a number of substances commonly called toxic air contaminants or hazardous air pollutants (HAPs) are produced by a wide range of airport and non-airport sources. The term HAPs refers to

pollutants that do not have established NAAQS or CAAQS but present potential adverse human health risks from short-term or prolonged exposures. These substances are primarily subsets of VOC (or ROG) and particulate emissions. Their effects and potential toxicity vary, and they have or are suspected to have impacts on human health, including risks of cancer, respiratory conditions, and other health effects.

In general, there are no federal or state reporting requirements for HAPs that are applicable to airports. Airport-related HAP emissions are a very small portion of total HAPs emitted in the region around any airport. Compared to the No-Project Alternative in 2012, overall project-related VOC/ROG and particulate emissions from the Proposed Project are projected to increase by about 0.1 percent for VOC/ROG and 0.0 percent for particulates. Thus, project-related emissions of HAPs in 2012 are anticipated to slightly increase. With these levels, it is highly unlikely that project-related emissions of HAPs would exceed the SJVAPCD Thresholds of Significance for Toxic Air Contaminants. Therefore, no Human Health Risk Assessment was conducted for this Draft EA/EIR.

2.2.1.4 General Conformity Rule

Fresno County, including the Generalized Study Area, has been designated by U.S. EPA as a Serious Ozone Nonattainment Area for the 8-hour ozone standard. Under the Federal CAA, this designation signifies that violations of the NAAQS for this pollutant have occurred within this region, and that the area must be brought into attainment with the standard by June 2013. This area had previously been designated as an Extreme Ozone Nonattainment Area for the 1-hour ozone standard. However, with U.S. EPA's revocation of the 1-hour ozone standard in June 2005, this designation no longer applies.

Fresno County, and the entire SJVAB, is also designated as a Serious Nonattainment Area for PM_{10}, a Nonattainment Area for the $PM_{2.5}$, and an attainment or unclassified area for the other U.S. EPA criteria air pollutants for which there are NAAQS. The Fresno-Clovis urbanized area (which includes FAT) is designated as an Attainment/Maintenance area for CO.

Currently, approved SIPs are in place in the SJVAB nonattainment areas for the 1-hour O_3 standard, CO, and PM_{10}. SIPs are currently being prepared for the 8-hour O_3 standard and $PM_{2.5}$.

Under the provisions of the CAA General Conformity Rule (40 CFR Part 93, Subpart B), federal agencies are prohibited from approving, funding, or promoting any projects or actions that do not conform to the objectives and goals of the SIP. As previously stated, the General Conformity Rule stipulates that federal actions or projects would not cause or contribute to any new violation of NAAQS, increase the frequency or severity of any existing violation, and/or delay the timely attainment of the standards or other SIP milestones.

Applicability Criteria

As a means of determining whether or not the requirements of the General Conformity Rule apply, U.S. EPA has established *de minimis* emission levels for the nonattainment/maintenance air pollutants. For ozone, its precursors (i.e., VOC and NO_x) are used as surrogates. **Table 2.2-1** lists the applicable *de minimis* values for the Fresno-Clovis area. In addition, U.S. EPA has identified SO_2 as a precursor

pollutant to $PM_{2.5}$ formation, and has promulgated a *de minimis* level of 100 tpy for this pollutant (U.S. EPA, 2006). Because the Generalized Study Area is designated as in attainment of the standards for SO_2 and lead, no *de minimis* values apply to these criteria pollutants and no further discussion of these pollutants is needed with respect to General Conformity.

Table 2.2-1: General Conformity *De Minimis* Levels in the San Joaquin Valley Nonattainment Area

Pollutant	*De minimis* Level (tons per year)
CO	100
VOC (as ozone precursor)	50
NO_x (as ozone precursor)	50
PM_{10}	70
$PM_{2.5}$ (direct emissions)	100
SO_2 (as $PM_{2.5}$ precursor)	100

Sources: 40 Code of Federal Regulations (CFR) Parts 6, 51, and 93, November 30, 1993; 40 CFR Part 52, April 19, 1995; 40 CFR Parts 51 and 93, July 17, 2006.

Under the applicability test, the sum of future "net project-related direct and indirect emissions" must be evaluated. Net project-related direct and indirect emissions include only emissions that are explicitly created by the Proposed Project, that are reasonably foreseeable, and are controllable by the federal agency. These emissions are determined by subtracting the future No-Project Alternative emissions from the future Proposed Project emissions. Net project-related emission levels below the *de minimis* thresholds are presumed to conform to the SIP, and the General Conformity Rule is not applicable to them. However, when the net project-related direct and indirect emissions exceed the *de minimis* levels, the General Conformity Rule does apply. In these cases, further demonstration must be made in a formal General Conformity Determination to show that the project conforms to the applicable SIP(s) before the federal agency is allowed to approve and/or fund the project or action. Based on this approach, the results of the General Conformity Rule applicability tests for operational and construction-period emissions are discussed below.

Construction Period Emissions Applicability Test

The maximum annual total amounts of construction-related emissions for the applicable nonattainment pollutants associated with the Proposed Project are shown in **Table 2.2-2**. All of the construction-related emissions for all applicable nonattainment pollutants for each year in which construction activities are expected to occur are well below the General Conformity Rule *de minimis* levels. Again, it should be noted that the construction emissions table does not include SO_2, because the Roadway Construction Model does not calculate SO_2 emissions.

Table 2.2-2: *De Minimis* Comparison of Annual Construction-Related Emissions[1]

Year	Pollutant (tons per year)					
	CO	NO_x	PM_{10} [1]	$PM_{2.5}$ [1]	VOC	SO_2
2007	4.38	3.48	0.47	0.47	0.92	NA
2008	7.92	4.39	1.13	1.13	1.99	NA
2009	10.59	7.33	2.62	2.62	2.89	NA
2010	7.33	5.59	0.99	0.99	1.50	NA
2011	12.03	9.82	2.02	2.02	2.91	NA
2012	3.41	5.08	1.05	1.05	0.94	NA
Applicable *De Minimis* Levels	**100**	**50**	**50**	**70**	**100**	**100**

Notes: Construction-related emissions calculated using the Sacramento Metropolitan Air Quality Management District's *Road Construction Emissions Model Spreadsheet*, Version 5.1.
[1] $PM_{2.5}$ emissions assumed to be equal to PM_{10} emissions.

Operational Emissions Applicability Test

The total amount of FAT operational emissions of the nonattainment pollutants are tabulated in **Table 2.2-3** for both the No-Project Alternative and the Proposed Project in 2012 and 2025. All of the project-related operational emissions for all applicable nonattainment pollutants are well below the General Conformity Rule *de minimis* levels.

Table 2.2-3: *De Minimis* Comparison of 2012 and 2025 Operational Emissions

Scenario	Pollutant (tons per year)					
	CO	NO_x	PM_{10}	$PM_{2.5}$	VOC	SO_2
2012 Operational Emissions						
No-Project Alternative	458.89	127.13	20.05	20.05	34.15	8.82
Proposed Project	459.22	127.15	20.05	20.05	34.19	8.83
Project Related Emissions	0.33	0.02	0.0	0.0	0.04	0.01
Applicable *de minimis* Levels	**100**	**50**	**70**	**100**	**50**	**100**
2025 Operational Emissions						
No-Project Alternative	557.64	139.93	21.03	21.03	40.80	10.24
Proposed Project	557.80	139.94	21.04	21.04	40.81	10.24
Project-Related Emissions	0.16	0.01	0.01	0.01	0.01	0.00
Applicable *De Minimis* Levels	**100**	**50**	**70**	**100**	**50**	**100**

Conformity Assessment

As shown in **Table 2.2-4**, the changes in pollutant emissions in both 2012 due to routine operations of the Proposed Project are less than the General Conformity *de minimis* thresholds. When compared to the No-Project Alternative, the changes in emissions due to the Proposed Project show small increases in emissions due to the small increase in aircraft taxi time of 0.6 minutes for aircraft using the extended secondary runway (Runway 11R/29L). It should be noted that construction activities are expected to continue through the first six months of 2012 and would consist of final grading and paving work associated with the secondary runway (Runway 11R/29L) and associated taxiways. Therefore, for this applicability evaluation, the 2012 emissions data being assessed consist of all of the 2012 construction-related emissions plus one-half of the 2012 annual emissions due to routine operations. Compliance with the General Conformity Rule also requires that pollutant emissions due to construction activities are addressed. All of the project-related emissions for all applicable nonattainment pollutants are well below the *de minimis* thresholds of the General Conformity Rule. Again, it should be noted that the construction emissions table does not include SO_2, because the Roadway Construction Model does not calculate SO_2 emissions.

Regional Significance Test

According to the General Conformity Rule, a regionally significant action/project is a federal project or action with total direct and indirect emissions greater than 10 percent of the emissions inventory for the nonattainment area. If a project is determined to be regionally significant, a General Conformity Determination must be prepared. As presented in **Table 2.2-4**, the highest annual construction-related emissions associated with the Proposed Project are estimated to occur in 2011 for all pollutants analyzed. **Table 2.2-5** shows that these emissions (and thus the construction-related emissions from all of the other years analyzed) are much less than 10 percent of the emissions inventory for the SJVAB nonattainment area.

As shown in **Table 2.2-6**, total project-related operational emissions from the Proposed Project of all applicable pollutants in both 2012 are much less than 10 percent of the SJVAB nonattainment area's emissions.

Based on the assessment presented above, it is concluded that:

- Construction-related emissions from the Proposed Project at FAT are less than the applicable General Conformity *de minimis* thresholds;
- Routine operational emissions from the Proposed Project at FAT are less than the applicable General Conformity *de minimis* thresholds; and
- Total project-related construction and operations emissions are not regionally significant and conform to the goals and requirements of the CAA and the SIP.

Thus, FAA has met the requirements of the General Conformity Rule and no formal General Conformity Determination is required for this project.

Table 2.2-4: Annual Project-Related Construction and Operational Emissions

Pollutant (tons per year)	2007	2008	2009	2010	2011	2012[1]	2025
CO							
- Construction Activities	4.38	7.92	10.59	7.33	12.03	3.41	0
- Operations	0	0	0	0	0	0.17	0.15
Total CO Emissions	4.38	7.92	10.59	7.33	12.03	3.41	0.15
Applicable *de minimis* Level	100	100	100	100	100	100	100
NO_x							
- Construction Activities	3.48	4.39	7.33	5.59	9.82	5.08	0
- Operations	0	0	0	0	0	0.01	0.01
Total NO_x Emissions	3.48	4.39	7.33	5.59	9.82	5.09	0.01
Applicable *de minimis* Level	50	50	50	50	50	50	50
VOC							
- Construction Activities	0.92	1.99	2.89	1.50	2.91	0.94	0
- Operations	0	0	0	0	0	0.02	0.01
Total VOC Emissions	0.92	1.99	2.89	1.50	2.91	0.94	0.01
Applicable *de minimis* Level	50	50	50	50	50	50	50
PM_{10} [2]							
- Construction Activities	0.47	1.13	2.62	0.99	2.02	1.05	0
- Operations[1]	0	0	0	0	0	0.00	0.01
Total PM_{10} Emissions[2]	0.47	1.13	2.62	0.99	2.02	1.05	0.01
Applicable *de minimis* Level	70	70	70	70	70	70	70
$PM_{2.5}$ [2]							
- Construction Activities	0.47	1.13	2.62	0.99	2.02	1.05	0
- Operations[1]	0	0	0	0	0	0.00	0.01
Total $PM_{2.5}$ Emissions[2]	0.47	1.13	2.62	0.99	2.02	1.05	0.01
Applicable *de minimis* Level	70	70	70	70	70	70	70
SO_2 [3]							
- Construction Activities	NA	NA	NA	NA	NA	NA	0
- Operations	0	0	0	0	0	0.01	0.00
Total SO_2 Emissions	NA	NA	NA	NA	NA	0.01	0.00
Applicable *de minimis* Level	70	70	70	70	70	70	70

Notes: [1] Total project-related emissions in 2012 consist of all of the 2012 construction-related emissions plus one-half of the 2012 annual emissions due to routine operations.
[2] $PM_{2.5}$ emissions assumed to be equal to PM_{10} emissions.
[3] The Roadway Construction Model does not calculate SO_2 emissions.

Table 2.2-5: Highest Annual Construction-Related Emissions Compared to SJVAB Nonattainment Area Emissions (tons per year)

Source	CO	NO_x	PM_{10}	$PM_{2.5}$	VOC/ ROG[1]	SO_2
San Joaquin Valley Air Basin Emissions[2]	790,086	150,585	138,582	69,689	227,975	12,247
2011 Emissions from FAT Project Alternative	17.74	20.46	3.54	3.54	4.30	NA
Percent of Nonattainment Area Total	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%	NA

Notes: [1] Taken as ROG from the available CARB data.
[2] Taken from the Emission Inventories for 2010 (the closest year for most of the construction activities available) as published by the CARB on their website: http://arbis.arb.ca.gov. Data accessed July 19, 2006.
Source: CARB, 2006.

Table 2.2-6: Operational Emissions Compared to SJVAB Nonattainment Area Emissions (tons per year)

Source	CO	NO_x	PM_{10}	$PM_{2.5}$	VOC/ ROG[1]	SO_2
San Joaquin Valley Air Basin Emissions[2]	790,086	150,585	138,582	69,689	227,975	12,247
2012 Emissions from FAT Project Alternative[3]	0.33	0.02	0.00	0.00	0.04	0.01
Percent of Nonattainment Area Total	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%
San Joaquin Valley Air Basin Emissions[4]	676,304	112,179	1431678	70,159	225,136	13,548
2025 Emissions from FAT Project Alternative[3]	0.16	0.01	0.01	0.01	0.01	0.00
Percent of Nonattainment Area Total	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%	<0.001%

Notes: [1] Taken as ROG from the available CARB data.
[2] Taken from the Emission Inventories for 2010 (the closest year to 2012 available) as published by the CARB on their website: http://arbis.arb.ca.gov. Data accessed July 19, 2006.
[3] Emissions associated with the Proposed Project (No-Project emissions – Proposed Project emissions).
[4] Taken from the Emission Inventories for 2020 (the closest year to 2025 available) as published by the CARB on their website: http://arbis.arb.ca.gov. (Accessed July 19, 2006).
Source: CARB Emissions Inventories, April 2006.

2.2.1.5 Greenhouse Gases

Presently, there are no CEQA thresholds of significance established for greenhouse gases (GHG).[1] Therefore, it is not possible to fully evaluate the impacts of the Proposed Project on global climate change or on the environment in California. However, in September 2006, California Assembly Bill (AB) 32 called for CARB to adopt regulations requiring the reporting and verification of statewide greenhouse gas emissions and that a limit equivalent to the statewide greenhouse gas emissions in 1990 be achieved by year 2020.

[1] Greenhouse gases primarily include carbon dioxide (CO_2), methane (CH_4), and nitrous oxides (N_2O).

Construction of the Proposed Project would result in temporary increases in GHG emissions. These increases are associated with the operation of construction equipment, material hauling vehicles, and construction employee vehicles. Though not quantified, GHG emissions from construction would be minor compared to current statewide totals. Additionally, construction emissions are transient and temporary. Therefore, once construction is over GHG emissions generated by construction activities would cease. At this time, it is impossible to determine where the GHG emissions that are generated during construction would reside following dispersion to the atmosphere.

GHG associated with operation of the Proposed Project are primarily associated with energy consumption for heating, air conditioning, and lighting and fuel consumption associated with aircraft, GSE, construction equipment, and motor vehicles traveling to and from and moving about the Airport. The Proposed Project does not involve an increase in aircraft operations and passenger enplanements at FAT over the No-Project Alternative. Some of the Proposed Projects would increase heating, cooling, and ventilation is anticipated. The design of these facilities would promote sustainability by incorporating principles that improve efficiencies such as water savings and energy efficiency, whenever possible.

Under the No-Project Alternative and Proposed Project, aircraft operations are projected to occur at FAT in 2011 and 2025 according to the FAA TAF. Activity at FAT is expected to represent less than one percent of the U.S. aviation activity, which would result in far less than 0.001 percent of the U.S. based GHGs.

FAT is focused on achieving energy efficiency by minimizing waste and maximizing recycling efforts. The following are the operational and design measures currently used or planned for implementation at FAT to minimize and reduce GHGs:

- Unpaved airfield areas are mowed or sprayed to limit weeds (rather than disking) and reduce dust.
- Procedures are followed to open additional exit booths when the number of vehicles waiting to exit airport parking lots exceeds a specified amount of stacking. Self-pay, automated parking lot exit lanes will reduce dwell time and thereby increase throughput, reducing automobiles idling time.
- Routine maintenance and wet sweeping occurs during construction of airport service roads, taxiways, and runways to remove dirt and tire wear debris.
- The consolidated car rental facility is conveniently located adjacent to the terminal, eliminating the need for shuttle buses, reducing CO_2 emissions. State-of-the-art car wash, fuel system and oil/water separators will be installed to ensure clean discharge and reduced impurities into the drainage system.
- The passenger loading bridge uses electrically powered ground power and pre-conditioned air units for parked aircraft, thereby reducing the use of fossil fueled aircraft auxiliary power units and ground power units.

- Pushback tugs for aircraft movement from the terminal are used whenever possible to avoid aircraft engine start up until powered out to the taxiway.
- The Airport's on-site facility farm generates 4.2 megawatts of electricity per hour.
- Use of cool roofs at terminal facility.

Therefore, the Proposed Project would limit its contribution to GHG. Until CARB guidelines for estimating GHG are developed, FAT will endeavor to minimize these emissions attributable to both construction and operational activities.

Under the No-Project Alternative and Proposed Project, aircraft operations are projected to occur at FAT in 2011 and 2025 according to FAA TAF. Activity at FAT is expected to represent less than one percent of the U.S. aviation activity, therefore the contribution to U.S. GHG emissions is negligible.

2.3 2015–2025 PROJECT FINDINGS

2.3.1.1 Operations-Related Emissions

Comparing the results of the 2004 (existing conditions) emissions inventory with the 2025 No-Project Alternative and the 2025 Proposed Project emissions, CO, NO_x, VOC/ROG, and SO_2 increase slightly while emissions of PM_{10} and $PM_{2.5}$ decrease slightly. These variations in total emissions are due to two influences: (1) operations increasing from 163,971 in 2004 to 196,668 in 2025, an increase of almost 17 percent; and (2) the mix of aircraft in the fleet changed with several new aircraft being added and several aircraft being eliminated. The existing condition comparison is relevant for CEQA purposes only. NEPA is focused on future No-Project compared to the future Proposed Project. Implementation of the Proposed Project would result in changes in aircraft emissions associated with aircraft using the lengthened secondary runway in 2025. Compared to the 2025 No-Project Alternative emissions inventory, the emissions from the Proposed Project in 2025 would increase slightly. Mitigation measures are not required to reduce 2025 aircraft-related emissions as the potential increases are not anticipated to be significant. Based on the assessment presented above, the Proposed Project would not exceed any federal threshold indicating a significant air quality impact.

2.3.1.2 SJVAPCD Odor Threshold

With respect to the SJVAPCD Odor Threshold, a review of odor complaints filed with the SJVAPCD's Compliance Division revealed that no complaints have been filed with that agency against FAT, and no odor complaints have been filed with the City of Fresno. In addition, based on Table 4-2 of SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), SJVAPCD has not classified airports (and FAT in particular) as a source known to produce odors. With respect to project-related emissions of odorants (which are a subset of VOC/ROG), emissions of VOC/ROG in 2025 would increase by a very small amount compared to the 2004 existing conditions emissions (see **Table 2.2-2**). The existing condition comparison is relevant for CEQA purposes only. NEPA is focused on future No–Project compared to the future Proposed Project. This small increase in odorant emissions is not expected to be

significant enough to cause any odor complaints. Therefore, the Proposed Project would not exceed the odor significance threshold and would not create an unavoidable significant odor impact.

2.3.1.3 Emissions of Hazardous Air Pollutants

Emissions of a number of substances commonly called toxic air contaminants or hazardous air pollutants (HAPs) are produced by a wide range of airport and non-airport sources. The term HAPs refers to pollutants that do not have established NAAQS or CAAQS but present potential adverse human health risks from short-term or prolonged exposures. These substances are primarily subsets of VOC (or ROG) and particulate emissions. Their effects and potential toxicity vary, and they have or are suspected to have impacts on human health, including risks of cancer, respiratory conditions, and other health effects.

In general, there are no federal or state reporting requirements for HAPs that are applicable to airports. Airport-related HAP emissions are a very small portion of total HAPs emitted in the region around any airport. Compared to the No-Project Alternative in 2025, overall project-related VOC/ROG and particulate emissions from the Proposed Project are projected to increase by about 0.1 percent for VOC/ROG and less than 0.05 percent for particulates. Thus, project-related emissions of HAPs in 2025 are anticipated to slightly increase. With these levels, it is highly unlikely that project-related emissions of HAPs would exceed the SJVAPCD Thresholds of Significance for Toxic Air Contaminants. Therefore, no Human Health Risk Assessment was conducted for this Draft EA/EIR.

2.3.1.4 General Conformity Rule

Applicability Criteria

As a means of determining whether or not the requirements of the General Conformity Rule apply, U.S. EPA has established *de minimis* emission levels for the nonattainment/maintenance air pollutants. For ozone, its precursors (i.e., VOC and NO_x) are used as surrogates. **Table 2.2-1** lists the applicable *de minimis* values for the Fresno-Clovis area.

Construction Period Emissions Applicability Test

Impacts associated with the Proposed Project from 2015–2025 regarding construction-related emissions would be similar to those described for the 2009–2014 projects. The exact impact cannot be quantified at this time because project-specific details have not been developed. Therefore no analysis was conducted.

Operational Emissions Applicability Test

The total amount of FAT operational emissions of the nonattainment pollutants are tabulated in **Table 2.2-3** for both the No-Project Alternative and the Proposed Project in 2012 and 2025. All of the project-related operational emissions for all applicable nonattainment pollutants are well below the General Conformity Rule *de minimis* levels.

Conformity Assessment

As shown in **Table 2.2-4**, the changes in pollutant emissions in both 2012 and 2025 due to routine operations of the Proposed Project are less than the General Conformity *de minimis* thresholds.

Regional Significance Test

Impacts associated with the Proposed Project from 2015–2025 regarding construction-related emissions would be similar to those described for the 2009–2014 projects. The exact impact cannot be quantified at this time because project-specific details have not been developed. Therefore no analysis was conducted. However, as shown in **Table 2.2-6**, total project-related operational emissions from the Proposed Project of all applicable pollutants in both 2012 and 2025 are much less than 10 percent of the SJVAB nonattainment area's emissions.

Based on the assessment presented above, it is concluded that:

- Construction-related emissions from the Proposed Project at FAT need to be quantified once project specific level details are developed; and
- Routine operational emissions from the Proposed Project at FAT are less than the applicable General Conformity *de minimis* thresholds.

- Once the construction-related emissions associated with the 2015–2025 projects are quantifiable, a General Conformity Determination would be made.

2.3.1.5 Greenhouse Gases

Construction of the 2015–2025 projects would result in temporary increases in GHG emissions. These increases are associated with the operation of construction equipment, material hauling vehicles, and construction employee vehicles. Though not quantified, GHG emissions from construction would be minor compared to current statewide totals. Additionally, construction emissions are transient and temporary. Therefore, once construction is over GHG emissions generated by construction activities would cease. At this time, it is impossible to determine where the GHG emissions that are generated during construction would reside following dispersion to the atmosphere.

GHG associated with operation of the Proposed Project are primarily associated with energy consumption for heating, air conditioning, and lighting and fuel consumption associated with aircraft, GSE, construction equipment, and motor vehicles traveling to and from and moving about the Airport. The Proposed Project does not involve an increase in aircraft operations and passenger enplanements at FAT over the No-Project Alternative. Some of the Proposed Project would increase heating, cooling, and ventilation is anticipated. The design of these facilities would promote sustainability by incorporating principles that improve efficiencies such as water savings and energy efficiency, whenever possible.

FAT is focused on achieving energy efficiency by minimizing waste and maximizing recycling efforts. The following are the operational and design measures currently used or planned for implementation at FAT to minimize and reduce GHGs:

- Unpaved airfield areas are mowed or sprayed to limit weeds (rather than disking) and reduce dust.
- Procedures are followed to open additional exit booths when the number of vehicles waiting to exit airport parking lots exceeds a specified amount of stacking. A self-pay, automated parking lot exit lane will reduce dwell time and thereby increase throughput, reducing automobile idling time.
- Routine maintenance and wet sweeping occurs during construction of airport service roads, taxiways, and runways to remove dirt and tire wear debris.
- The consolidated car rental facility is conveniently located adjacent to the terminal, eliminating the need for shuttle buses and reducing CO_2 emissions. State-of-the-art car wash, fuel system, and oil/water separators installed to ensure clean discharge and reduced impurities into the drainage system.
- A passenger loading bridge uses electrically powered ground power and pre-conditioned air units for parked aircraft, thereby reducing the use of fossil fueled aircraft auxiliary power units and ground power units.
- Pushback tugs for aircraft movement from terminal are used whenever possible to avoid aircraft engine start up until powered out to the taxiway.
- The Airport's on site solar facility generates 4.2 megawatts of electricity per hour.
- Use of cool roofs at terminal facility.

Therefore, the Proposed Project would limit its contribution to GHG. Until CARB guidelines for estimating GHG are developed, CEC will endeavor to minimize these emissions attributable to both construction and operational activities.

Under the No-Project Alternative and Proposed Project, aircraft operations are projected to occur at FAT in 2011 and 2025 according to FAA TAF. Activity at FAT is expected to represent less than one percent of the U.S. aviation activity, therefore the contribution to U.S. GHG emissions is negligible

APPENDIX F
HAZARDOUS MATERIALS, POLLUTION PREVENTION, AND SOLID WASTE

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

HAZARDOUS MATERIALS, POLLUTION PREVENTION, AND SOLID WASTE

1.0 AFFECTED ENVIRONMENT

1.1 STUDY METHODS

Hazardous materials and wastes were identified and evaluated to address the potential for encountering hazardous materials or environmental contamination, a characterization of the types and potential quantities generated or impacted, and an assessment of these findings with respect to appropriate regulatory criteria. The first step was accomplished by identifying and mapping the locations of the sites/facilities that involve hazardous materials/wastes of known, or potential, environmental contamination in the vicinity of FAT.

1.2 EXISTING ENVIRONMENTAL CONDITIONS

1.2.1 Assessment Approach

An assessment was conducted in order to identify sites and facilities that are known, suspected, or are likely to contain/store hazardous substances, and to identify areas of known subsurface soil and/or groundwater contamination. The description and assessment of hazardous materials, pollution prevention, and solid wastes in the vicinity of FAT is based on the compilation and evaluation of information previously developed or disclosed from other sources, including:

- Collection and review of reports, maps, and other relevant documents relating to subsurface environmental conditions at FAT. These include site investigations and proposed remedial action documents from Environmental Resources Management (ERM).
- Communications with FAT staff and others having knowledge of and experience with hazardous materials and waste matters in the vicinity of FAT.
- An independent electronic database survey of federal, state, and local agency files pertaining to hazardous materials and environmental contamination in the vicinity of FAT.
- A reconnaissance survey of the Detailed Study Area and immediately adjacent areas with the intent of identifying sites/facilities of interest, underground storage tanks/above ground storage tanks (USTs/ASTs), hazardous materials, and other regulated substances.

It is important to note that there were no new studies undertaken in support of this Draft EA/EIR, such as Level I/II Environmental Site Assessments; waste, wastewater, subsurface soil/groundwater sampling; UST/AST testing; or other similar investigations of human-made or environmental media such as asbestos-containing materials or lead-based paints.

For the purposes of this Draft EA/EIR, the term “hazardous materials” also includes the regulatory-defined terms of hazardous wastes, hazardous substances, and dangerous goods; contamination to soil, surface

waters, and groundwater; as well as the assortment of similarly regulated substances such as fuel and other petroleum-based products.

The types, characteristics, and occurrences of hazardous materials and other similarly regulated substances at FAT are typical of most metropolitan airports that offer commercial, cargo, military, and general aviation service. These include the fueling, servicing, and repair of aircraft; use of ground support equipment (GSE) and motor vehicles; the operation and maintenance of the airfield, terminal complex and parking facilities; and a range of other special purposes connected with aviation (i.e., air cargo facilities, navigation, and air traffic control functions). In addition to the above, FAT is also home for the California Air National Guard (CANG). The California Army National Guard and the U.S. Marine Corps Reserve also occupy space at FAT. Off-airport activities in or near the Detailed Study Area include a mixture of industrial, commercial, warehousing, and residential uses. Based on a reconnaissance survey of the Detailed Study Area, activities at these facilities likely involve the use of hazardous substances/materials, and the generation of hazardous wastes.

The largest quantities of substances used at FAT that are classifiable as hazardous include aircraft and motor vehicle fuels. Other, smaller amounts of petroleum products (e.g., lubricants and solvents), waste materials (e.g., used oils, filters, cleaning residues, and spent batteries), and manufactured chemicals (e.g., herbicides, fertilizers, paints, fire-fighting foam, de-icing fluids, etc.) are stored in various locations throughout at FAT. These materials and substances are characteristically used on a routine basis in support of aircraft, GSE, and motor vehicle activities, and for a range of other similar functions to keep the airport operational and meet FAA safety requirements. Additionally, de-icing takes place at FAT and the airlines or operators of the aircraft are responsible for compliance with storage, disposal, and care of de-icing fluids or spills.

Former and existing sites of environmental contamination at FAT are mainly attributed to its former use as a military airfield during World War II. The U.S. Army Air Corps developed FAT in the early 1940s as Hammer Field. The U.S. Army Air Corps deactivated the base in late 1945, and the City of Fresno assumed operation in 1946. There are several sites/facilities in the vicinity of FAT that are known, or have the potential, to contain hazardous materials and/or other regulated substances, or have been identified as confirmed hazardous waste release sites. These sites/facilities are located within or near the Detailed Study Area. In order to assess these sites/facilities of potential concern, a computerized database containing federal, state, and local regulatory agency file information was generated to support this Draft EA/EIR (EDR, 2006). This database report is used as a screening tool to identify known hazardous materials release sites, generators of hazardous wastes, and UST/AST sites that are reported to be present in the vicinity of the FAT.

1.2.2 Assessment Findings

Based on the review of documents pertaining to hazardous substances in the vicinity of FAT, the main issues that have been identified are related to conditions associated with the Old Hammer Field and current FAT activities located along the southern side of the airfield, west of the terminal building, where the existing air cargo and general aviation operations are located.

Old Hammer Field – The boundary of Old Hammer Field is shown on **Figure 5.7-1** of the EA/EIR. Numerous military and civilian occupants of Old Hammer Field and its remnant buildings have conducted commercial/industrial activities at this location since its development in 1941 (ERM, 2004). In 1991, ERM conducted a preliminary assessment with the boundary of Old Hammer Field to assess historical site usage, summarize previous environmental investigations, and identify areas of environmental concern that may be the subject of future investigation activities. Based on the results of the preliminary assessment, Area 1 of Old Hammer Field was identified as the highest priority area for additional investigation. Area 1 is located near the North Clovis Avenue/Aircorp Way intersection on the northeast side of FAT. A site inspection was conducted in 1992 that identified a plume of chlorinated volatile organic compounds (VOC) originating in Area 1. The plume extends from the water table at approximately 100 feet below ground surface (bgs) to depths in excess of 300 feet bgs, is more than 2 miles long, and extends several thousands of yards to the southwest of the current FAT airport boundary (ERM, 2004). **Figure 5.7-2** of the EA/EIR shows the approximate boundary of the on- and off-airport VOC groundwater plume. Remediation activities for the VOC plume are ongoing.

In addition to the VOC groundwater plume, the results of a remedial investigation conducted at the CANG facility indicated the presence of soil and groundwater contamination related to subsurface releases. A plume of tetrachloroethene (PCE) occurs primarily at the CANG facility, with a smaller PCE plume also emanating from Area 1 at Old Hammer Field. Testing of groundwater has indicated that the plume has migrated to the southwest beyond the perimeter of the CANG facility by approximately 1,500 feet (ERM, 2004). **Figure 5.7-3** of the EA/EIR shows the extent of the CANG and Area 1 PCE plume. Based on the results of the CANG remedial investigation, it was determined that the CANG PCE plume had commingled with the Area 1 Old Hammer Field VOC groundwater plume. As such, the CANG PCE groundwater plume remediation was addressed in the proposed remedial alternatives for the Area 1 Old Hammer Field VOC groundwater plume. Remediation activities for the PCE plume are ongoing.

In order to assess potential risks associated with the identified contamination in Area 1 at Old Hammer Field, a Human Health Risk Assessment was performed using the data generated during the remedial investigation for soil gas, soil, and groundwater within the Area 1 plume boundary. The extent of VOC in soil gas in Area 1 is shown on **Figure 5.7-3** of the EA/EIR. Based on the information generated for the Human Health Risk Assessment, the following conclusions were reached (ERM, 2004):

- Chemical constituents identified in soil and soil gas do not pose unacceptable health risks under either industrial or residential exposure scenarios; and
- VOC identified in the on- and off-site groundwater plume exceed the benchmarks for evaluation of acceptable risks established by the California Department of Toxic Substances Control.

The information generated during the remedial investigation along with the subsequent Human Health Risk Assessment were used to develop a set of Remedial Action Objectives that are protective of both human health and groundwater quality. The Remedial Action Objectives were developed from health-based remedial goals, beneficial uses of site resources, groundwater protection goals, and applicable/relevant and appropriate requirements. A feasibility study was undertaken by ERM to evaluate potential remedial alternatives that would satisfy the Remedial Action Objectives and ensure

concentrations of VOC in groundwater and soil gas do not exceed the established remedial goals. The following four remedial options were evaluated in the feasibility study (ERM, 2004):

- Alternative 1: No Action
- Alternative 2: Institutional/Engineering Controls, Long-Term Monitoring
- Alternative 3: Institutional/Engineering Controls, Long-Term Monitoring, Source Area Treatment
- Alternative 4: Institutional/Engineering Controls, Long-Term Monitoring, Source Area Treatment, Toe-of-Plume Groundwater Extraction.

Based on the feasibility study evaluation process, it was determined that Alternative 4, Institutional/Engineering Controls, Long-Term Monitoring, Source Area treatment, Toe-of-Plume Groundwater Extraction, was the preferred alternative, because it is protective of human health, restores the beneficial uses of on- and off-site groundwater through active remediation, and includes long-term groundwater monitoring to assess remedial efficacy.

FAT – In order to assess the potential for soil and groundwater impacts from other on- and off-airport related facilities and other commercial/industrial site operations being conducted in the vicinity of FAT, an environmental database report of federal, state, and local regulatory agency file information was generated by Environmental Data Resources (EDR) in July 2006. As previously indicated, this database report was used as a screening tool to identify known hazardous materials release sites, generators of hazardous wastes, and UST/AST sites reported to be present within a prescribed search radius around FAT. The locations of the sites identified in the EDR database report are shown on **Figure 5.7-4** of the EA/EIR and summarized in **Table 1.2-1** by site number, site name, location, site description, nature and extent of contamination, and current site status.

The majority of the hazardous substances release sites associated with current FAT activities that have impacted subsurface conditions are mainly located along the southern side of the airfield, west of the terminal building, where the existing air cargo and general aviation operations are located. Activities at this portion of the airfield include the fueling, servicing, and repair of aircraft, GSE, and motor vehicle activities. The majority of the subsurface impact has been from the release of petroleum hydrocarbons from USTs in this area. Where releases were significant, soil removal was conducted in order to reduce the potential threat to groundwater quality.

Although very few sites were actually identified within FAT itself, several sites bordering the airport were reviewed to assess the potential for contamination at these sites/facilities to impact implementation of the Proposed Project. It should be noted that only known release sites listed in the EDR database report have been taken into consideration during this assessment.

Solid Waste – During 2007, FAT generated approximately 219 tons of solid waste from airport operations from 574,530 enplanements. Solid wastes at FAT are typical of commercial/general aviation airports and generally include unwanted or discarded paper, plastic, and food products; and landscaping, construction debris, and other similar forms of garbage or trash that are not classifiable as hazardous. This waste material is collected in designated areas at the airport and hauled offsite to approved disposal facilities

throughout the region. The City of Fresno Solid Waste Management Division provides solid waste removal at FAT. Once trash is removed from the airport, it is delivered to the American Avenue Landfill, which is operated by Fresno County, or to the Orange Avenue Landfill, which is privately operated. Sufficient capacity exists in either landfill for the foreseeable future.

Table 1.2-1: Sites of Known Environmental Contamination in the Vicinity of FAT

EDR ID	Site Name	Site Address	Description and Type/Extent of Contamination	Current Status
52	Fresno Air Terminal	5065 East Anderson Avenue	Active UST site with one 1,000-gallon gasoline UST and one 550-gallon diesel UST.	USTs still in service.
52	Fire Station No. 10	5065 East Anderson Avenue	Active UST site with two 550-gallon diesel USTs.	USTs still in service.
52	FATA REAG	5055 East Anderson Avenue	Active UST site with three 500-gallon USTs for fuel.	USTs still in service.
52	Wofford Flying Service	5045 East Anderson Avenue	Active UST site with four 30,000-gallon jet fuel USTs, four 20,000-gallon jet fuel USTs, one 1,000-gallon gasoline, and two 500-gallon waste oil tank.	Site is also closed LUST site. Soil excavated to approximately 50 feet. About 544 cubic yards remain. Site closed by County.
52	Corporate Aircraft	5012 East Anderson Avenue	Gasoline contamination found during UST closure. Ground water affected.	Former contaminated site/cleanup complete.
52	Mercury Air/Wofford Flying Service	5006 East Anderson Avenue	Minor incident involving release of jet fuel – no remedial action required.	Case is closed.
52	Raytheon Aircraft	5004 East Anderson Avenue	Former contaminated site. Removal of eight USTs.	Clean-up complete.
52	Western Piper Sales	4996 East Anderson Avenue	Close LUST site. 3,000 cubic yards of jet fuel impacted soil remain at the site.	Case closed by County.
52	Executive Wings	4988 East Anderson Avenue	UST removal and close of four tanks. Soil and groundwater impacted by jet fuel.	Case closed by RWQCB.
52	Beechcraft West, Inc.	5005 East Anderson Avenue	Total of twelve USTs. Nine USTs used for fresh product. Three USTs used for waste oil.	Active UST site.
72	Budget Rent-a-Car	5075 East Clinton Way	Contaminated UST site. Soil only. Pollution Characterization under way.	Case open. RWQCB is current lead.
73	Avis Rent-a-Car Systems, Inc.	5101 East Clinton Way	One 11,630-gallon UST for unleaded gasoline shortage.	Active UST site.
73	Fresno Air Terminal	2401 North Ashley Way	Contamination found during diesel UST closure.	Case closed by RWQCB.

Table 1.2-1: Sites of Known Environmental Contamination in the Vicinity of FAT (Continued)

EDR ID	Site Name	Site Address	Description and Type/Extent of Contamination	Current Status
73	Fresno Air Terminal	2401 North Ashley Way	According to EDR Report, there are 14 active USTs at the site.	Active UST site.
88	National Car Rental System, Inc.	5175 East Clinton Way	Soil contamination discovered during closure/removal of a UST. Only soil impacted.	Closed LUST site. Active UST site.
85	California Air National Guard	5425 East McKinley Avenue	Status of groundwater investigation discussed previously above. Currently maintains 26 USTs for storage of petroleum products.	Active UST site. Open groundwater contamination site with DTSC.
92	Old Hammer Air Field	NW of Clovis and McKinley	Conditions for this site discussed above. Bunker fuel oil release being confirmed.	Ongoing groundwater case with DTSC. Low-priority release. Case open with RWQCB.
31	California National Guard	5575 Shields Avenue East	Release of diesel fuel to the subsurface. Pollution characterization underway.	Medium priority case with local CUPA. Miscellaneous DISC lead.
15	Sunnyside Pools, Inc.	4919 Dakota Avenue East	Soil contamination discovered during UST removal. Soil only – no groundwater.	Case closed by local agency.
9	MED STAT Transportation System	4979 Dakota Avenue East	Site maintains two 1,000-gallon and one 550-gallon USTs for fuel storage.	Active UST site.
9	Holiday Pools	4961 Dakota Avenue East	Gasoline contamination discovered during UST removal. Pollution characterization under way.	Open LUST case, medium priority with county.
53	Former Fresno Lumber	2747 North Clovis Avenue	UST removal from site.	Closed UST site.
67	Wofford Flying Services	2245 North Clovis Avenue	Former contaminated site. Cleanup complete. Closed by CUPA.	Closed UST facility.
67	Long's Building Supply	2380 North Clovis Avenue	Formerly operated one 550-gallon unleaded UST.	Closed UST facility.
67	Unknown	2400 North Clovis Avenue	Chemical spill/release. Details not reported.	Completed 11/7/89.
59	Unknown	2291 North Airways	Chemical spill/release. Details not reported.	Completed 11/14/89.

Table 1.2-1: Sites of Known Environmental Contamination in the Vicinity of FAT (Continued)

EDR ID	Site Name	Site Address	Description and Type/Extent of Contamination	Current Status
59	Fresno AUCRAD	5592 East Terminal Drive	Site has five USTs. Capacities and contents not listed.	Status – Unknown.
45	Fresno Air Terminal	None provided	Chemical spill/release. Details not provided.	Completed 1/19/90.
45	FAT RTR	None provided	Site operates one 500-gallon UST for waste.	Active UST site.
25	Lube N Go	4796 East Shields Avenue	Formerly operated five USTs at the site.	Inactive UST location.
25	Unknown	4800 East Shields Avenue	Chemical spill/release. Details not provided.	Date completed 5/23/90.
25	Penny Wise	4805 East Shields Avenue	Former contaminated site.	Cleanup complete.
25	Circle K # 8582	4805 East Shields Avenue	Site currently operates three USTs for fuel storage.	Active UST site.
18	Unknown	5400 East Airways Drive	Chemical spill/release. Details not reported. Unknown cause from pool cleaning tank at a public pool. One injured, five evacuated.	Date completed – unknown. Incident date 8/3/91.
7	Unknown	4973 East Lansing Way	Chemical spill/release. Details not provided.	Date completed 1/28/89.
7	Western Sweeping Service	4963 East Lansing Way	Site has one active 1,080-gallon UST for storage of unleaded fuel.	Active UST site.
7	Gerald Monge Concrete Cont.	4960 East Lansing Way	Site formerly operated two UST for gasoline.	Closed UST facility.
7	Commercial Building – Larry Kelly	4952 East Lansing Way	Site operated one 1,000-gallon UST. Type of fuel stored unknown.	Closed UST facility.
60	Sierra Building Material	2636 North Larkin Avenue	Leak from UST impacted drinking water aquifer.	Leak being confirmed. Open case with County.

Table 1.2-1: Sites of Known Environmental Contamination in the Vicinity of FAT (Continued)

EDR ID	Site Name	Site Address	Description and Type/Extent of Contamination	Current Status
47	Rogers Helicopters	5484 Perimeter Road East	Release of jet fuel discovered during UST closure. Pollution characterization underway.	Active UST site. Open LUST case with local agency.
50	Unknown	5644 Westover #12	Chemical spill/release. Details not provided.	Completed 3/21/88.
50	California Department of Food and Agriculture	2895 North Larkin Avenue	Currently operates two 1,000-gallon USTs.	Active UST site.
32	Unknown	5649 East Shields Avenue	Leaking bushing caused release of 2 gallons of hydraulic oil with PCB content of 518 ppm.	Incident date 6/11/96. Date completed not reported.
56	Morrison Chemical Co.	2705 North Larkin Avenue	Manufactured stain remover using dilute HF. Site is abandoned.	Site referred to another agency.
38	Unknown	4881 East Simpson Avenue	High winds blew over transformer pole. One gallon of insulating oil got into gutters and storm drain. PCB content of transformer oil was 17 ppm.	Incident date 1/29/98. Date completed not reported.
72	Budget Rent-a-Car	5076 East Clinton Way	Have removed and closed one UST with County. Currently operates four USTs for fuel and waste oil storage.	Active UST site.

Source: EDR, 2006

APPENDIX G
SECTION 106 CULTURAL RESOURCES DETERMINATION

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

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July 16, 2008

Reply To: FAA070503C

Douglas R. Pomeroy
Environmental Protection Specialist
Federal Aviation Administration
831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

Re: Finding of Effect for the Proposed Short-Term Master Plan Projects, Fresno Yosemite International Airport, Fresno, CA

Dear Mr. Pomeroy:

You have provided me with the results of your efforts to determine whether the undertaking referenced above may affect historic properties. You have done this, and are consulting with me, in order to comply with Section 106 of the National Historic Preservation Act and implementing regulations codified at 36 CFR Part 800.

The Federal Aviation Administration (FAA) has determined that the proposed undertaking will have no effect on historic properties.

Based on review of the submitted documentation, I have the following comments:

1) The cultural resource studies conducted to date are adequate.
2) No historic properties will be affected by the proposed project.

Thank you for considering historic properties during project planning. If you have any questions, please call Natalie Lindquist at (916) 654-0631 and e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division
San Francisco Airports District Office

831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

March 26, 2008

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
California Department of Parks and Recreation
Office of Historic Preservation
P. O. Box 942896
Sacramento, California 94296-0001

Dear Mr. Donaldson:

Determination of No Historic Properties Affected
Proposed Short-Term Master Plan Projects
Fresno Yosemite International Airport, Fresno, California

The FAA is undertaking a joint National Environmental Policy Act (NEPA) Environmental Assessment (EA) and California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) with the City of Fresno regarding Master Plan Improvement Projects at the Fresno International Airport (FAT). The FAA is the lead federal agency responsible for the environmental evaluation of the proposed Short-Term Master Plan projects at FAT in accordance with NEPA and Section 106 of the National Historic Preservation Act (NHPA). These short-term projects were originally anticipated to occur between 2007 and 2011. However the environmental documentation process is proceeding more slowly than anticipated, and the completion of the short-term projects is now anticipated to occur between 2008 and 2012.

The City of Fresno is the lead local agency responsible for the CEQA EIR. The City of Fresno CEQA EIR also covers Long-Term Master Plan Projects through the year 2025. The FAA's evaluations only consider the Short-Term Master Plan projects at this time because the FAA, in accordance with agency guidance, does not consider the Long-Term Master Plan Projects to be reasonably foreseeable for NEPA analysis.

The Federal Aviation Administration (FAA), San Francisco Airports District Office, is informing you of our determination, in accordance with 36 CFR 800, that we have concluded that no historic properties will be affected by the proposed Short-Term Master Plan Project Improvements at FAT. This conclusion is based on the enclosed

Archaeological Technical Report (Enclosure 1) and Historic Resources Inventory and Evaluation Report (Enclosure 2), which found that no historic properties were present within the Area of Potential Effect (APE). Enclosure 3 includes previous FAA coordination with you including your letter of September 6, 2006, concurring with the FAA's determination of the APE. Enclosure 3 also documents our efforts to contact Native American organizations to request information regarding historic resources within the APE. No response from any Native American organization was received.

Should an unanticipated discovery of a potentially historic property occur during construction, the FAA will proceed in accordance with 36 CFR 800.13(b). Should human remains be encountered, work in the vicinity will halt and the Fresno County Coroner will be notified immediately.

In accordance with 36 CFR 800.4(d)(1)(i), the FAA's responsibilities under Section 106 of the NHPA are fulfilled unless you object to this determination within 30 days of your receipt of this documentation. If you have any further questions or comments regarding this proposed action, please contact me 650-876-2778 ext 612.

Sincerely,

original signed by

Douglas R. Pomeroy
Environmental Protection Specialist

Enclosure 1 Archaeological Technical Report
Enclosure 2 Historic Resources Inventory and Evaluation
Enclosure 3 Prior Agency Coordination

Copy to:
Kevin Meikle, City of Fresno, Department of Airports w/o enclosures
David Reel, URS Corporation w/o enclosures

Blind copy to: Chron 612 project file
SF ADO: D.R. Pomeroy:650-876-2778 ext 612:3/4/2008

ENCLOSURE 1

ARCHAEOLOGICAL TECHNICAL REPORT
ENVIRONMENTAL ASSESSMENT
FRESNO-YOSEMITE INTERNATIONAL AIRPORT

AUGUST 2007

1.0 SUMMARY OF FINDINGS

No archaeological resources were identified during two archaeological field efforts conducted for this project (September 2004 and August 2006). Given the highly disturbed nature of the area, the result of extensive grading, and other earth-moving activities, it is unlikely that intact archaeological deposits remain within the FAT area of potential effect (APE).

None of the properties within the APE are eligible for listing in the National Register of Historic Places (NRHP), and are not considered historical resources for the purposes of National Environmental Policy Act (NEPA).

2.0 PROJECT DESCRIPTION AND LOCATION

FAT is located approximately 5 miles northeast of downtown Fresno, California. The proposed project is separated into short-term (2007-2011) and long-term (2012-2025) projects. The tables below describe the projects proposed for each phase.

Short-Term Master Plan Projects at FAT (2007–2011)

Airside Projects

- Extend length of secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet to the west;
- Widen secondary runway from 100 feet to 150 feet;
- Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B, B4, C, C4, Hold Pad B and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building;
- Rehabilitate general aviation aprons; and
- Relocate and rehabilitate and airfield service road.

Landside Projects

- Construct consolidated rental car facility;
- Construct terminal parking garage;
- Construct new employee parking area; and
- Implement public parking improvements, including relocated meter parking, reconfigured signage, construct a park-and-wait area, and construct a permanent parking attendant structure.

Other Projects

- Acquire land for new offsite detention basin (30 acres); and
- Implement storm drainage improvements, including conversion of North Chestnut/East Shields Basin storm water holding area to detention basin with pump station and infrastructure improvements associated with runway/taxiway work.

Long-Term Master Plan Projects at FAT (2012–2025)

Airside Projects

- Extend length of primary runway (Runway 11L/29R) from 9,222 feet to 10,000 feet to the west;
- Extend length of secondary runway (Runway 11R/29L) from 8,000 feet to 8,700 feet to the east;
- Construct Taxiways B14 and C14 and extend Taxiway C;
- Rehabilitate Taxiways B2, B5, B6, B7, B8, B11, C10 and C12;
- Continue rehabilitation of concourse aprons adjacent to original terminal building;
- Continue rehabilitation of general aviation aprons;
- Construct aircraft maintenance apron;
- Install Category III Instrument Landing System for secondary runway (Runway 11R/29L);
- Improve the Surface Movements Guidance and Control System (SMGCS) on all taxiways; and
- Relocate airfield service road.

Landside Projects

- Expand terminal concourse building;
- Rehabilitate and expand terminal support facilities, including the Airport Traffic Control Tower, food distribution, waste disposal, maintenance, and aircraft rescue and fire fighting station;
- Expand the air cargo facility;
- Implement public parking improvements, including covered parking areas and taxicab shelter; and
- Implement road access improvements, including relocating East Dakota Avenue, vacating North Winery Avenue, and constructing Aircorp Way extension.

Other Projects

- Acquire land for noise mitigation and approach safety areas on the southeast side of the airfield (290 acres);
- Construct new offsite detention basin (30 acres); and
- Implement storm drainage improvements, including rehabilitation/enlargement of McKinley/Clovis pump station and infrastructure improvements associated with runway/taxiway work.

3.0 SUMMARY OF IDENTIFICATION EFFORTS

The following describes the identification efforts undertaken by cultural resources personnel to identify potential cultural resources in the proposed project area.

3.1 RECORD SEARCH/LITERATURE REVIEW

In October of 2004, a record search and literature review was requested from Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield. Attached to the request was a portion of the Clovis U.S. Geological Service (USGS) 7.5-Minute topographic quadrangle (1964; photorevised 1981) delineating the current airport boundaries. The Information Center serves as a

regional office for the State Historic Preservation Officer (SHPO). The purpose of the record search was to ascertain whether any historic or cultural resources had been previously identified within or adjacent to the airport property, and to identify any previous historic or cultural resources investigations that may have included the FAT. The requested research included a review of ethnographic and historic literature and maps; Federal, State, and local inventories of historic properties; archaeological base maps and site records; and survey reports on file at the SSJVIC.

Because a new project element consisting of the purchase of land for the construction of a stormwater detention basin had been added subsequent to the completion of the record search, and the fact that existing record search was nearly 2 years old, a second record search from the SSJVIC was conducted in July 2006. On September 6, 2006, the SHPO confirmed the revised APE was defined appropriately.

Additionally, databases from the National Register of Historic Places (NRHP), California Office of Historic Preservation Determinations of Eligibility for the NRHP, California Inventory of Historic Resources, California Historical Landmarks, and California Points of Historical Interest were reviewed to identify known and potential historical resources to determine whether any buildings, structures, objects, districts, or sites had been previously recorded or evaluated in or near the APE. Database research was also conducted in Fresno at the California State University, Fresno Madden Library, Map Library, and Special Collections; at the Fresno County Public Library California Room; at the California State Library; and at the University of California, Davis, Shields Library. At these repositories, primary and secondary sources, historic maps and aerial photographs, newspapers, reports, government documents, and journals articles were examined. Furthermore, interviews were conducted with FAT staff. County property information from the First American Real Estate Solutions database was also reviewed.

The record search revealed that three previous cultural resources investigations have occurred within the confines of the current APE for historic architectural resources. The major investigation was an assessment of the California Air National Guard (CANG) facilities located in the southern extent of the airport, with a smaller parcel at the northern end. Another surveyed area also occurs along the northern fence line, immediately south of the Palm Lakes Golf Course. The third study was for the Shields Diagonal Roadway that now bisects/borders the northeastern portion of the airport. These three studies likely encompass a combined area of less than 250 acres.

No previous archaeological investigations had been undertaken within the confines of FAT. Similarly, no archaeological resources have been identified within the current airport boundaries.

3.2 FIELD RECONNAISSANCE

In September 2004, an archaeological reconnaissance visit was conducted for the portion of the APE situated within the confines of the airport. Due to both security reasons and the fact that FAT was in active use at the time of the survey, a complete intensive survey of the APE was prohibited (i.e., 15- to 20-meter transect intervals across entire APE). Furthermore, nearly the entire APE for archaeological resources at FAT has been substantially graded, with large expanses subsequently paved. Given these parameters, an intensive pedestrian survey of the portions of the APE to the northwest and southeast of

the runways/taxiways and the area around and east-southeast of the terminal was conducted. The remainder of the airport area, specifically the areas between the runways and taxiways, were given a cursory examination. Figure 1 shows the areas at and around FAT that were surveyed in support of this archaeological study.

No archaeological resources were identified during either archaeological field effort. Given the highly disturbed nature of the area at FAT, which is the result of extensive grading and other earth-moving activities, it is unlikely that intact archaeological deposits remain within the FAT APE. Also, due to the previous and existing agricultural activities at the two areas southeast of the airport, it is unlikely that intact archaeological deposits remain within this portion of the APE.

4.0 PUBLIC PARTICIPATION

The following describes the public participation activities that have and will take place with respect to the proposed projects at FAT.

4.1 AGENCY AND PUBLIC SCOPING MEETING

On July 21, 2005 an Agency and Public Scoping Meeting was held in Fresno, California in order to give the public and relevant agencies an opportunity to comment on the scope of the proposed project and alternatives. A presentation was made to those in attendance which consisted of informational flyers, meeting boards and an oral presentation about the proposed project. After the meeting, written and verbal comments on the breadth of the proposed project were solicited. The Public will have another opportunity to comment on the proposed project once the Draft Environmental Assessment/Impact Report is released for public review.

4.2 STATE HISTORIC PRESERVATION OFFICER (SHPO) LETTER

On February 24, 2006, the Federal Aviation Administration (FAA) sent a letter to the SHPO in order to gain concurrence on the determination of the Area of Potential Effect (APE) for the proposed FAT improvements. Concurrence from the SHPO was received on April 17, 2006. On July 24, 2006, the FAA sent another letter to the SHPO requesting concurrence for a revised APE for the proposed FAT improvements. Concurrence from SHPO was again received on September 6, 2006.

4.3 NATIVE AMERICAN CONSULTATION

To further assist in securing information regarding cultural resources located in or near FAT, a request for information was submitted to the Native American Heritage Commission (NAHC). Specifically, the NAHC was requested to review their sacred lands file as well as provide the names of Native American groups and individuals who might have knowledge or concerns about potential resources within the FAT vicinity. The sacred land files of the NAHC did not indicate the presence of any cultural resources (i.e., traditional cultural properties) within the FAT vicinity on October 13, 2004, however the NAHC provided a list of

Native American individuals/organization you may have had better knowledge of cultural resources within the proposed project area. Each individual/organization was contacted by letter on October 14, 2004. No responses were received. The following individuals/organizations were contacted:

- Clarence Atwell, Chairperson of the Santa Rosa Rancheria
- Lee Ann Walk Grant, Chairperson of the Table Mountain Rancheria
- Michael Russell, Tribal Administrator of the Table Mountain Rancheria
- Bob Pennell, Cultural Resources Director of the Table Mountain Rancheria
- John Goodfellow, Environmental Coordinator of the Table Mountain Rancheria

5.0 CULTURAL RESOURCES IDENTIFIED

No cultural resources have been identified as being located within the proposed project area.

6.0 NO HISTORIC PROPERTIES AFFECTED FINDING

In August 2006, a historic architectural reconnaissance visit was conducted, which consisted of photographing and visually inspecting the buildings, structures, and objects in the APE. Only unevaluated buildings 45 years old or older were recorded and evaluated.

Six buildings at FAT are more than 45 years old; none are eligible for the NRHP. None of the properties within the APE appear to be eligible for listing in the NRHP, and are not considered historical resources.

7.0 FINDINGS

Although no archaeological resources were identified on the surface of the project's APE, it is possible that with project implementation buried archaeological deposits may be exposed during construction activities. Unless properly evaluated and managed, this could result in a potential impact to cultural resources.

In the event of the discovery of buried archaeological artifacts, exotic rock (non-native), or unusual amounts of shell or bone, it is recommended that project activities in the vicinity of the find be immediately stopped and a qualified professional archaeologist consulted to assess the resource and provide proper management recommendations. If the discovery includes human remains then the Fresno County Coroner and Native American Heritage Commission must also be contacted. The development of mitigation measures would be conducted in consultation with the SHPO, and, if the site is of indigenous association, the NAHC and local Native American community would be contacted as well.

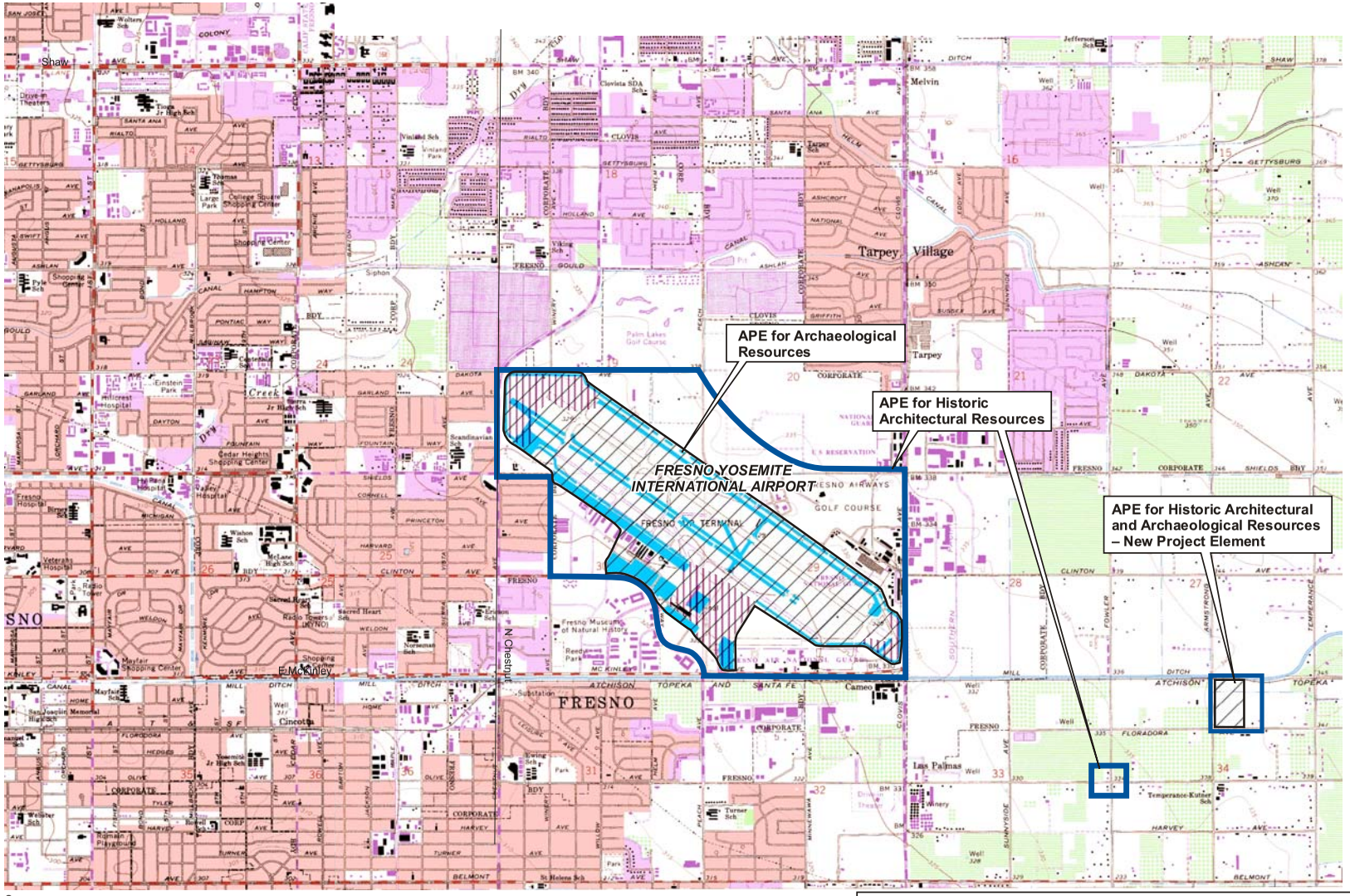
8.0 MAPS

Figure 1 which is enclosed, depicts the APE for the proposed project at FAT as well as the areas of FAT surveyed for cultural resources.

9.0 PREPARERS

Mr. Mark Hale (URS Senior Project Archaeologist). Mr. Mark Hale holds a B.A. in Anthropology from the University of California, Berkeley. He has more than 20 years of professional experience in conducting and managing cultural resource investigations in California and elsewhere in western North America and the Pacific Islands. Mr. Hale conducted the pedestrian reconnaissance and was the primary author of this report.

Project oversight was provided by Mr. Brian Hatoff (URS Senior Project Archaeologist) Mr. Brian Hatoff received both his B.A. and his M.A. in Anthropology from the University of California, Davis, is a Registered Professional Archaeologist, and has more than 30 years professional experience in California and Nevada.



LEGEND

- APE for Historic Architectural Resources
- APE for Archaeological Resources
- Intensive Archaeological Survey

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Scale in Feet

Source:
USGS 7.5 minute Topo Maps,
Fresno North and Clovis, CA (1981) quads

CULTURAL RESOURCES AREA OF POTENTIAL EFFECT

Fresno Yosemite International Airport

July 2007
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FIGURE 1

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STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
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September 6, 2006

Reply To: FAA990830A

Aimee Kratovil, Environmental Specialist
Federal Aviation Administration
831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

Re: Revised Area of Potential Effect for the Fresno Yosemite International Airport Master Plan, Fresno, CA

Dear Mr. Kratovil:

Thank you for your letter of July 24, 2006, requesting our comments on the revised delineation of the area of potential effects (APE) for the above project. Based on review of the submitted documentation I agree that the revised APE for the proposed project is defined appropriately.

Thank you for your interest in historic properties. If you have any questions, please call Natalie Lindquist at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

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U.S Department
of Transportation

**Federal Aviation
Administration**

Western-Pacific Region
Airports Division
San Francisco Airports District Office

831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

July 24, 2006

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
California Department of Parks and Recreation
Office of Historic Preservation
P. O. Box 942896
Sacramento, California 94296-0001

**Re: Fresno Yosemite International Airport – Master Plan Update
Environmental Assessment/Environmental Impact Report
Cultural Resources Areas of Potential Effects**

Dear Mr. Donaldson:

In previous correspondence (February 13, 2006), the Federal Aviation Administration (FAA) initiated consultation with the California Office of Historic Preservation (OHP) pursuant to §800.3(c)(3) concerning the Fresno Yosemite International Airport (FAT or airport) Environmental Assessment/Environmental Impact Report (EA/EIR). At that time, FAA defined an Area of Potential Effect (APE) for archaeological resources as the geographic limit of ground disturbing activities on the airport and an APE for architectural resources as the 2004 Community Noise Equivalent Level (CNEL) contour. The 2004 CNEL contour is based on the FAA approved limit of the 65 dBA noise level at FAT. Subsequently, it has come to our attention that the architectural resources APE needs to be revised to better reflect the scale of impact of the proposed project, and both the archaeological resources APE and architectural resources APE needs to be amended to add a new project component.

As a part of the EA/EIR process, FAA has generated future noise contours to determine the scale of impact from the proposed project. Our work estimates that the 2011 CNEL contour will primarily be smaller than the existing 2004 CNEL contour. This is based on the fact that the 2004 CNEL contour was modeled using 167,349 aircraft operations, while the 2011 CNEL contour was modeled using 159,539 which is a difference of 7,810 operations. This reduction coupled with a change in the aircraft fleet using FAT has resulted in a smaller contour, which is a net benefit to the Fresno area. Changes in the aircraft fleet are a result of phasing out or reducing the use of older, noisier aircraft. As such, FAA proposes to revise the configuration of the APE for architectural resources to only include the airport itself and the portion of the Generalized Study Area that would be subjected to impacts in 2011 that currently do not experience an impact in 2004. This area is located southeast of FAT. The proposed revision to the architectural resources APE is depicted on Enclosure 1.

The previously approved APE for archaeological resources will be retained. However, a new project component has been added to the proposed project east of Armstrong Avenue and south of Mill Ditch. This site is approximately two miles east of FAT and about 30 acres in size. The action approved for this site is the construction of a new storm water detention basin. This new project component will be added to the APE for archaeological resources as well as the APE for architectural resources. We have depicted our proposed APE boundary for this new project component on Enclosure 1.

FAA seeks concurrence with the State Historic Preservation Officer on both the revised architectural resources APE and the amended archaeological/architectural APE for the new project component.

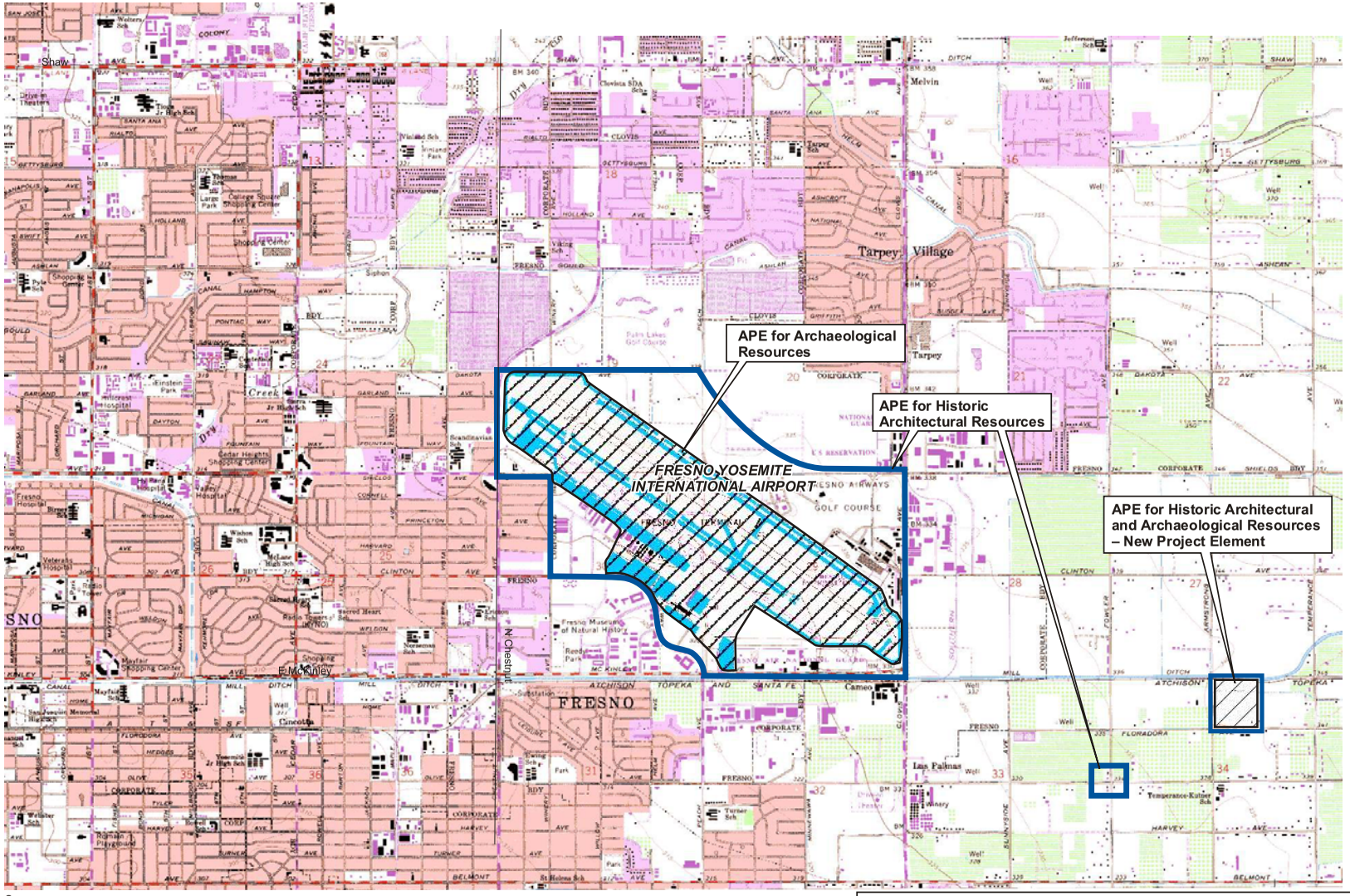
Please feel free to telephone me at (650) 876-2927 ext. 612, if you have any questions regarding this matter.

Sincerely,

Aimee Kratovil
Environmental Protection Specialist

Enclosures: (1) Area of Potential Effects –Cultural Resources

cc: David Reel, URS Corporation



LEGEND

- APE for Historic Architectural Resources
- APE for Archaeological Resources

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Scale in Feet

Source:
USGS 7.5 minute Topo Maps,
Fresno North and Clovis, CA (1981) quads

FRESNO YOSEMITE International Airport

CULTURAL RESOURCES AREA OF POTENTIAL EFFECT

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

July 2006
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FIGURE -

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U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division
San Francisco Airports District Office

831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

February 24, 2006

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer
California Department of Parks and Recreation
Office of Historic Preservation
P. O. Box 942896
Sacramento, California 94296-0001

Re:
Fresno Yosemite International Airport Master Plan Update
Environmental Assessment/Environmental Impact Report Cultural Resources Areas of Potential Effects

Dear Mr. Donaldson:

The purpose of this letter is to apprise you of a proposed update to the Fresno Yosemite International Airport Master Plan that is under consideration for approval and potential future funding by the Federal Aviation Administration (FAA). As such, the FAA has determined that this proposed project is a federal undertaking as defined in 36 CFR § 800.16(y).

The FAA would like to initiate consultation with the California Office of Historic Preservation (OHP) pursuant to § 800.3(c)(3), and request concurrence with FAA's delineation of the proposed Area of Potential Effects (APE) as defined in § 800.16(d).

Project Location and Background

Fresno Yosemite International Airport (FAT or Airport) generally lies east of State Route 168 (SR-168) and northeast of State Route 180 (SR-180), in the City of Fresno, CA. The City of Fresno is located in the San Joaquin Valley in central California. FAT is bounded by Dakota Avenue on the north, Clovis Avenue on the east, McKinley Avenue on the south, and Chestnut Avenue on the west. The Airport is accessed via Clinton Way from McKinley Avenue. Downtown Fresno and State Route (SR-99) lie approximately 5 miles southwest of FAT.

Project Description

The Fresno Yosemite International Airport Master Plan Update has been prepared with varying levels of potential development for the next 20 years. The EA will focus on the near term projects anticipated between 2006 and 2011 that are projected in the Airport Capital Improvement Program (ACIP). The main purpose of the environmental review will be to complete the appropriate level of environmental analysis and documentation necessary to comply with local, state, and federal requirements.

For the purposes of initiating consultation with the OHP on the delineation of the Area of Potential Effects, the FAA is defining the APE for archaeological resources as congruent with the proposed development envelopes for the proposed short-term improvements (2006-2011). For historic architectural resources, the FAA is defining the APE as congruent with the 65 CNEL

(Community Noise Equivalent Level) contour. A copy of the proposed APE for cultural resources is attached as Enclosure (1).

Conclusion

The FAA seeks to initiate Section 106 consultation for the EA, and seek concurrence on the delineation of the respective APEs for both archaeological and historic architectural resources.

We would like to arrange for a meeting in the near future to discuss the project description, and apprise the OHP of FAA's plans for completing the Section 106 process.

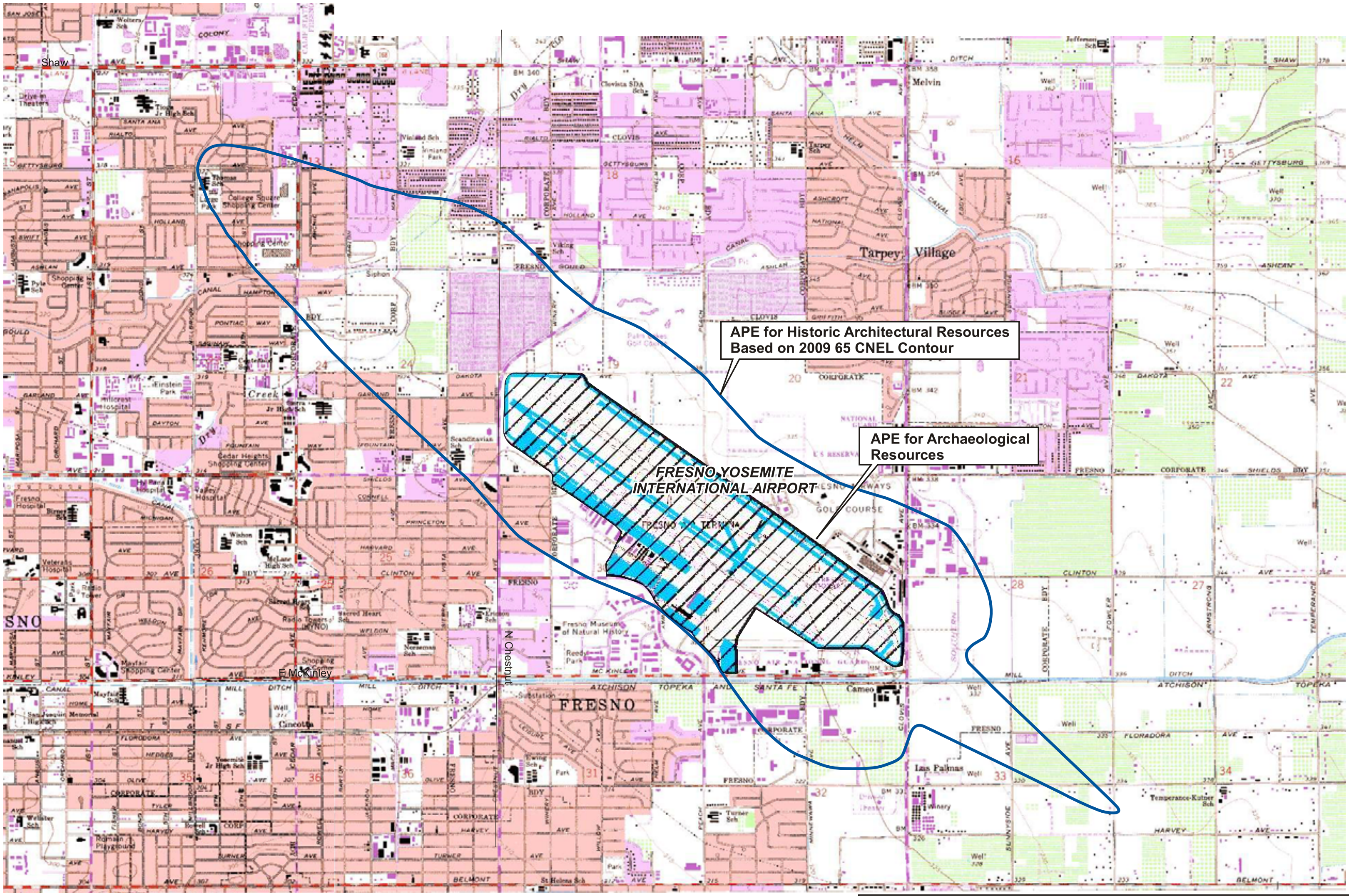
Please feel free to telephone me at (650) 876-2927 ext. 612, if you have any questions regarding this matter.

Sincerely,

Aimee Kratovil
Environmental Protection Specialist

Enclosures: (1) Area of Potential Effects –Cultural Resources

cc:
David Reel, URS Corporation



LEGEND

- APE for Historic Architectural Resources
- APE for Archaeological Resources

Source:
USGS 7.5 minute Topo Maps,
Fresno North and Clovis, CA (1981) quads

FRESNO YOSEMITE International Airport

CULTURAL RESOURCES
AREA OF POTENTIAL EFFECT

February 2006
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Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

FIGURE 1

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STATE OF CALIFORNIA – THE RESOURCES AGENCY
ARNOLD SCHWARZENEGGER, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
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RECEIVED
APR 18 2006
SFO-600

April 17, 2006

Reply To: FAA990830A

Aimee Kratovil, Environmental Protection Specialist
Federal Aviation Administration
831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

Re: Area of Potential Effect for Proposed Master Plan Update, Fresno Yosemite International Airport, Fresno, CA

Dear Ms. Kratovil:

Thank you for your letter of February 24, 2006, requesting our comments on the delineation of the area of potential effects (APE) for the above project. Based on review of the submitted documentation I agree that the APE for the proposed project is defined appropriately.

Thank you for your interest in historic properties. If you have any questions, please call Natalie Lindquist at (916) 654-0631 or e-mail at nlind@ohp.parks.ca.gov.

Sincerely,

Stephen D. Mikesell for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

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STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

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RECEIVED
SEP 14 2006
SFO-600

September 6, 2006

Reply To: FAA990830A

Aimee Kratovil, Environmental Specialist
Federal Aviation Administration
831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

Re: Revised Area of Potential Effect for the Fresno Yosemite International Airport Master Plan, Fresno, CA

Dear Mr. Kratovil:

Thank you for your letter of July 24, 2006, requesting our comments on the revised delineation of the area of potential effects (APE) for the above project. Based on review of the submitted documentation I agree that the revised APE for the proposed project is defined appropriately.

Thank you for your interest in historic properties. If you have any questions, please call Natalie Lindquist at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov.

Sincerely,

Susan K Stratton for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

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ENCLOSURE 2

HISTORIC RESOURCES INVENTORY AND EVALUATION REPORT

Historic Resources Inventory and Evaluation Report of the Fresno-Yosemite International Airport Fresno County, California

Prepared for:

The Federal Aviation Administration

Prepared by:

JRP Historical Consulting, LLC

1490 Drew Avenue, Suite 110 Davis, California 95618

August 2006

SUMMARY OF FINDINGS

The Fresno-Yosemite International Airport (FAT) is located in Fresno County, California, approximately six miles from downtown Fresno. The FAT Master Plan Update has been prepared with varying levels of potential development for the next 20 years. The Federal Aviation Administration (FAA) is the lead federal agency for the master plan. For historic architectural resources, the FAA is defining the project's Area of Potential Effect (APE) as congruent with the airport itself, plus the portion of the Generalized Study Area that would be subjected to impacts in 2011 that currently do not experience an impact in 2004 (this area is located southeast of FAT), as well as a site located east of Armstrong Avenue and south of Mill Ditch. This site is approximately two miles east of FAT and about 30 acres in size. The action approved for this site is the construction of a new storm water detention basin.

The Master Plan Update is prompting FAT to undertake an inventory and evaluation of historic resources in the APE. The California Air National Guard, which has a complex on the southeast corner of the airport property, conducted an inventory and evaluation of historic buildings and structures in December 2000 as part of an environmental assessment and found no properties eligible for the National Register of Historic Places (NRHP). The California State Historic Preservation Officer (SHPO) concurred with these finding.[1] No previous historic resource evaluations or inventories exist for the remaining area of the APE.

The proposed projects in the FAT Master Plan require compliance with Section 106 of the National Historic Preservation Act (NHPA), as well as the California Environmental Quality Act (CEQA) as it pertains to historic resources. Section 106 and CEQA compliance require the inventory and evaluation of potentially historic buildings, structures, and objects in the APE. These requirements call for the identification of known or potential historic properties, i.e. resources listed in, eligible for listing in, or that appear eligible for listing in the National Register of Historic Places (NRHP) within the project's APE. If the evaluation process identifies historic properties, Section 106 regulations (in Title 36, Code of Federal Regulations, Part 800) require that federal agencies must assess the effect a project may have on that resource and mitigate any adverse effects to historic properties.

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[1] "Environmental Assessment for Short-Term Construction Projects at the 144th Fighter Wing," Air National Guard, Environmental Planning Division, December 2000.

JRP Historical Consulting, LLC, (JRP) prepared this Historic Resources Inventory and Evaluation Report under contract with URS Corporation to identify and evaluate historic resources in the APE that are more than fifty years old for their eligibility to be listed in the NRHP. FAT will use this report to gain concurrence from the SHPO, in the California Office of Historic Preservation (OHP), on the NRHP eligibility of these resources. This report will also serve to assess the eligibility of historic properties to be listed in the California Register of Historical Resources (CRHR) and be considered historic resources under CEQA, as described in the CEQA Guidelines Section 15064.5(a)(2)-(3).

Figure 1 shows the project vicinity and location. Figure 2 depicts the APE and the location of the resources evaluated in this report. These figures are in Appendix A. JRP prepared Department of Parks and Recreation Primary and Building Structure and Object Record forms (DPR 523 forms) for the evaluated resources. A Linear Record was also prepared for the Mill Ditch. The DPR 523 forms are in Appendix B.

This report concludes that none of the properties in the APE for this project appear to meet the criteria for listing in the NRHP and thus there appear to be no historic properties under the NHPA Section 106 regulations. The properties within the APE for this project were also evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria of the CRHR outlined in Section 5024.1 of the California Public Resources Code. None of the properties in the APE appear to be significant under those criteria and thus they are not considered historical resources for the purposes of CEQA.

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STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

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RECEIVED
APR 18 2006
SFO-600

April 17, 2006

Reply To: FAA990830A

Aimee Kratovil, Environmental Protection Specialist
Federal Aviation Administration
831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

Re: Area of Potential Effect for Proposed Master Plan Update, Fresno Yosemite International Airport, Fresno, CA

Dear Ms. Kratovil:

Thank you for your letter of February 24, 2006, requesting our comments on the delineation of the area of potential effects (APE) for the above project. Based on review of the submitted documentation I agree that the APE for the proposed project is defined appropriately.

Thank you for your interest in historic properties. If you have any questions, please call Natalie Lindquist at (916) 654-0631 or e-mail at nlind@ohp.parks.ca.gov.

Sincerely,

Stephen D. Mikesell for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

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0. PROJECT DESCRIPTION

The Fresno Yosemite International Airport (FAT) Master Plan Update has been prepared with varying levels of potential development for the next 20 years. The Environmental Assessment/Environmental Impact Report (EA/EIR) will focus on quantitatively evaluating the near term projects anticipated between 2006 and 2011 that are projected in the Airport Capital Improvement Program (ACIP). The main purpose of the environmental review will be to complete the appropriate level of environmental analysis and documentation necessary to comply with local, state, and federal requirements.

For the purposes of initiating consultation on the Area of Potential Effects (APE), the Federal Aviation Administration (FAA) is defining the APE for archaeological resources as congruent with the proposed development envelopes for the proposed short-term improvements (20062011). For historic architectural resources, the FAA is defining the APE as congruent with the airport itself, the portion of the Generalized Study Area that would be subjected to impacts in 2011 that currently do not experience an impact in 2004 (this area is located southeast of FAT), and a site located east of Armstrong Avenue and south of Mill Ditch. This site is approximately two miles east of FAT and about 30 acres in size. The action approved for this site is the construction of a new storm water detention basin. This project component is included in the APE for archaeological resources as well as the APE for architectural resources. A copy of the proposed APE for cultural resources is attached as Appendix A.

JRP Historical Consulting (JRP) is under contract to URS Corporation to inventory the buildings, structures, and objects in the APE that are more than fifty years old to evaluate their eligibility for listing in the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). This study helps fulfill FATs compliance requirements under Section 106 of the National Historic Preservation Act as well as under the California Environmental Quality Act (CEQA), as it pertains to historical resources.

JRP has identified six buildings on FAT property more than fifty years old: Buildings 76, 97, 66, 85, 86, and 75. In the portions of the APE off FAT property, JRP identified five buildings and structures that are more than fifty years old: 5993 East Olive Avenue, 5950 East Olive Avenue, 1442 North Fowler Avenue, 6672 East Floradora Avenue, and the Mill Ditch. None of the above listed buildings and structures are subject to demolition. Rather, changes to the Master Plan and new construction have triggered a mandatory inventory and evaluation

of potential historic properties. JRP staff has reviewed national, state, and local historic resource inventories, and are currently working on evaluating the historic significance of the buildings and structures in the FAT APE.

1. RESEARCH AND FIELD METHODS

JRP examined the standard sources of information that list and identify known and potential historical resources to determine whether any buildings, structures, objects, districts, or sites had been previously recorded or evaluated in or near the APE. The FAA defined the project's APE as congruent with the airport itself, plus the portion of the Generalized Study Area that would be subjected to impacts in 2011 that currently do not experience an impact in 2004 (this area is located southeast of FAT), as well as a site located east of Armstrong Avenue and south of Mill Ditch. JRP reviewed the NRHP, Office of Historic Preservation Determinations of Eligibility for the NRHP, California Inventory of Historic Resources, California Historical Landmarks, and California Points of Historical Interest.[2] These sources did not list any previously identified historical resources in the APE.

Research did reveal one report that inventoried and evaluated historic properties at the California Air National Guard complex in the southeast corner of the airport property. The report, completed in December 2000, found none of the buildings in this area eligible for the NRHP. SHPO concurred with this finding.[3]

JRP conducted fieldwork in the APE on August 7 and 8, 2006, which consisted of photographing and visually inspecting the buildings, structures, and objects in the APE. JRP conducted research in Fresno on these two days at the California State University, Fresno Madden Library, Map Library, and Special Collections; and the Fresno County Public Library California Room. JRP also conducted research at the California State Library, and at the University of California, Davis Shields

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[2] National Park Service, National Register Information System, online database: http://www.nr.nps.gov/ (accessed August 2006); Office of Historic Preservation, Directory of Properties in the Historic Property Data File for Fresno County, 2005; Department of Parks and Recreation, *California Inventory of Historic Resources*, March 1976; Office of Historic Preservation, *California Historical Landmarks*, (Sacramento: California State Parks, 1996); and Office of Historic Preservation, *California Points of Historical Interest*, (Sacramento: California State Parks, May 1992).

[3] "Environmental Assessment for Short-Term Construction Projects at the 144th Fighter Wing," Air National Guard, Environmental Planning Division, December 2000.

Library. At these repositories, JRP examined primary and secondary sources, historic maps and aerial photographs, newspapers, reports, government documents, and journals articles. In addition, JRP interviewed and obtained documents from Danny Yrigollen and Nathan Sanchez of the Fresno-yosemite International Airport. JRP obtained county assessor information from the First American Real Estate Solutions database.

Descriptions and evaluations of the buildings, structures, and objects are in Section 4 and Section 5. DPR 523 forms are in Appendix 2. Refer to the references listed in Section 6 for a complete listing of materials consulted and to Section 7 for JRP staff professional qualifications.

2. HISTORIC OVERVIEW

The following section provides historical background and information regarding the history of FAT and its surrounding area, with a focus on the specific areas surveyed for this project. This information provides the appropriate historic context within which to evaluate the historical significance of the buildings, structures, and objects in the APE area.

2.1. Early Development in the Vicinity of FAT

2.1.1. Fresno Canal and Irrigation Company

Settlement near Fresno began during the Gold Rush with towns like Millerton and Centerville being established. Stock raising prevailed after miners exhausted the area's meager mineral resources and Spanish cattle and sheep roamed the dry, open land. Most of the herders in the region did not own the land, but grazed their stock on government land. The first significant investors in land where Fresno was established were Isaac Friedlander, William Chapman, and the German Land Association. A. Y. Easterby was a member of the German Land Association and established a 5000-acre ranch south of the APE area in T14S/R21E MDBM.[4]

Easterby, however, was not content to raise cattle. After witnessing some small-scale irrigation projects east of his ranch near the settlement of Centerville on the King's River, Easterby envisioned a grander irrigation project to water not only

[4] Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 18-19.

his land, but vast tracts in the region. In 1870, he hired a local sheepman, Moses J. Church, to accomplish the task. Church began by purchasing the existing canals near Centerville, and later Church, Easterby, and others incorporated the Fresno Canal and Irrigation Company (FCIC). Church acted as manager of the company and sought to extend the canal system throughout the Fresno plains.[5]

A second irrigation company, the Kings River and Fresno Canal Company (KRFCC), incorporated in 1873 by L.A. Gould, Henry Voorman, George Eggers, and others. The KRFCC drew water from the Kings River north of the FCIC intake and watered land via the Enterprise and Gould canals, north of land served by the FCIC. A ten-year legal battle ensued between the two companies over water rights to the Kings River beginning in 1875. At the end of the proceedings, the KRFCC lost most of its water rights and the court ordered it to fill in its main canal at the headgate. Following this decision, the FCIC purchased its rival and took over operation of its canals.[6]

Water began flowing through the first leg of the FCIC's main canal, known as the Fresno Canal or the Church Canal, in 1872. It flowed west from the Kings River from a division in Section 35 T13S/R19E MDBM, and construction extending it proceeded piecemeal for several years. Naturally, Easterby was one of the first to make use of the canal water and his oasis of green fields created a stark contrast to the desert surroundings. The sight attracted the attention of Central Pacific Railroad surveyors and motivated them to locate the town site of Fresno City in 1872. After the establishment of Fresno, Church acquired the rights of way for future canals and branches in 121 sections in four townships, with the provision that construction occur by 1879. This purchase gave the FCIC the potential to run canals through 77,000 acres of prime farmland. As the canals irrigated more land in the area, the population grew and the county seat transferred from Millerton to Fresno City in 1874. Fresno and the FCIC continued to grow and by 1876, the FCIC had extended the Fresno Canal over twenty miles to an agricultural settlement south of Fresno City.[7]

Growth of the FCIC proceeded at a steady pace, but it did not come without some difficulty. The company had financial problems in 1877 and Church lost his company to the Bank of Nevada. The bank, finding canal operations less

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[5] "Historic Architectural Survey Report Highway 180, Fowler Avenue to Cove Avenue," JRP Historical Consulting Services, 1992, 14-16; Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980), 68, 76, 99; Thickens, "Pioneer Agricultural Colonies," 18-19.
[6] Willison, Past, Present, and Future, 68, 76; "Historic Architectural Survey Report," 14-16.
[7] Willison, *Past, Present, and Future*, 90, 91, 84, 1875 map; "Historic Architertural Survey Report," 14-16; Thickens, "Pioneer Agricultural Colonies," 18-19.

profitable than anticipated, sold the FCIC back to Church five months later. Church then continued to expand his canal network until it reached lands on all sides of Fresno City. Church sold the FCIC to San Franciscan E. B. Perrin in 1887. Perrin had acquired the Laguna de Tache grant in 1891, which extended westward from the north bank of the King's River, with its riparian water rights, giving the FCIC more water and touching off a land boom in Fresno County. The economic slowdown of 1893, however, put the FCIC in financial trouble. Perrin lost the company to English capitalists in 1894; by 1898, it was irrigating over 160,000 acres. The English syndicate controlled the company until it became part of the Fresno Irrigation District (FID) in 1921. At the time of this last acquisition, the FCIC had over 600 miles of canals. Today the FID continues to provide irrigation water to Fresno County.[8]

2.1.2. Mill Ditch

After Church reacquired the FCIC from the Bank of Nevada in 1877, he built another branch to the canal system completed in 1878. The Mill Ditch (Map Reference 6) began in Section 31

T13S/R20E MDBM where the Fresno Canal turned to the southwest. From there it went west through land owned by Church in T13S/R21E along what is now McKinley Boulevard and adjacent to the study area for this report (Illustration 1). The ditch passed through this township, into the adjoining township to the west, where it turned southward between sections 35 and 36 and proceeded into downtown Fresno.[9]

The Mill Ditch benefited properties adjacent to its course, especially those belonging to Church. It provided water to four sections of land owned by Church, which he quickly sold for subdivision into small farms. The canal also irrigated the 640-acre Barton Vineyards. In Fresno, the ditch proceeded down Fresno Street to N Street where it powered Church's Champion Flour Mill. From the

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[8] I. Teilman, W.H. Shafer, The Historical Story of Irrigation in Fresno and Kings Counties in Central California (Fresno: Williams and Son, 1943), 17-18, 21-24; Willison, Past, Present, and Future, 102-107.

[9] From the Online Archive of California, identifier frp0127. Available at http://content.cdlib.org/ark:/13030/kt7x0nc9nt/?brand=oac, accessed August 2006; Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891), 61.

mill, the canal continued west of the city and irrigated more agricultural land. The canal, however, began to pose a problem for the residents of Fresno. As the Mill Ditch traveled through the city, it became a receptacle for raw sewage. When water was low in the ditch, the odor became overwhelming and drew the ire of neighboring citizens. Objections to the waterway became so strong that the city had it filled in 1892. By that time, Church had sold the mill. It became the Fresno Milling Company and operated by electrical power.[10]

The Mill Ditch continued to provide water to agricultural land in Fresno County outside of the city after 1892. It was an integral part of the FCIC system and irrigated large tracts of land northeast, north, and northwest of Fresno. After 1921, the Mill Ditch became part of the FID network of canals and today it still provides water to farms and people in the Fresno area.[11]

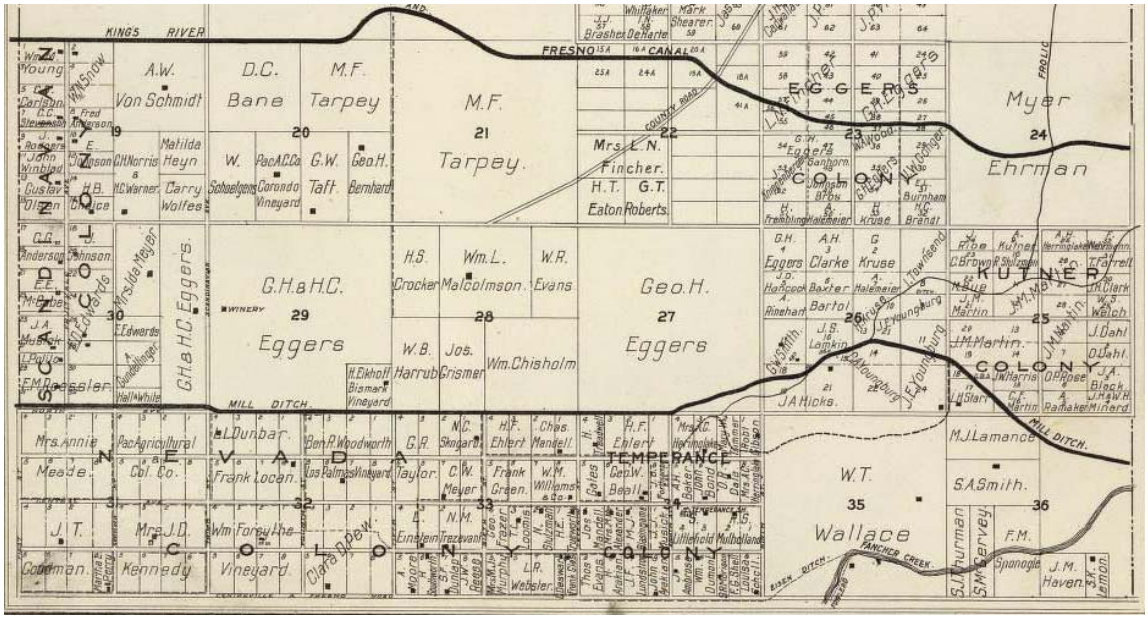

Illustration 1. Map of T13S/R21E, MDBM from an 1891 atlas by Thomas Thompson. FAT currently occupies all of Section 29, and parts of sections 19, 20, and 30. The map shows the agricultural colonies in the vicinity, property owners, and the Mill Ditch.

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[10] Thompson, *Official Historical Atlas*, 61; *Fresno, California* (New York: Sanborn Map and Publishing Company, 1885, 1888); *Fresno Republican* 15 July 1882; *Fresno Weekly Republican* 13 March 1893; United States, Department of the Interior, "Water Supply and Irrigation Papers of the United States Geological Survey, No. 18." (Washington: Government Printing Office, 1898), 45, 46; Scott McKay, *Official Map of the County of Fresno, California* (San Francisco: Britton and Rey, 1914).

[11] Department of the Interior, "Water Supply and Irrigation Papers," 45, 46; McKay, *Official Map of the County of Fresno, California*; USGS, *Clovis Quadrangle,* 1946, 1964, 1972, 1981; Willison, *Past, Present, and Future*, Plate 2

2.1.3. Agricultural Development

Agricultural development of the area near FAT (Map Reference 1) began about 1870. Wheat was the first crop cultivated, but after irrigation canals were built in the early 1870s, production shifted to grapes and orchard crops. Early landowners in the area were George Eggers, Moses Church, A.Y. Easterby, and Henry Voorman, men who were also prominent figures in early irrigation ventures. Some retained possession of their land and developed large ranches. George H. Eggers purchased 800 acres in 1868 centered on the current site of the FAT. The first crop planted on the ranch was wheat in 1872. Eggers and others organized the Kings River and Fresno Canal Company (KRFCC) in 1873, discussed above, and soon after Eggers began to receive water on his lands from the Gould Canal of the KRFCC system. With water, wheat went by the wayside and Eggers devoted almost his entire acreage to grapes. By 1882, he and his son, Herman C., had 600 acres of grapes, 50 acres of fruit trees, and 50 acres of alfalfa (Illustration 1). The family constructed a residence, winery, and distillery on the property; none of these buildings are extant (Illustration 2).[12]

[12] Thompson, *Official Historical Atlas*, 61; Willison, *Past, Present, and Future*, 84, 1875 map; *History of Fresno County, California with Illustrations*…(San Francisco: Elliot and Company, 1882), 212; *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892), 806, 809-811.

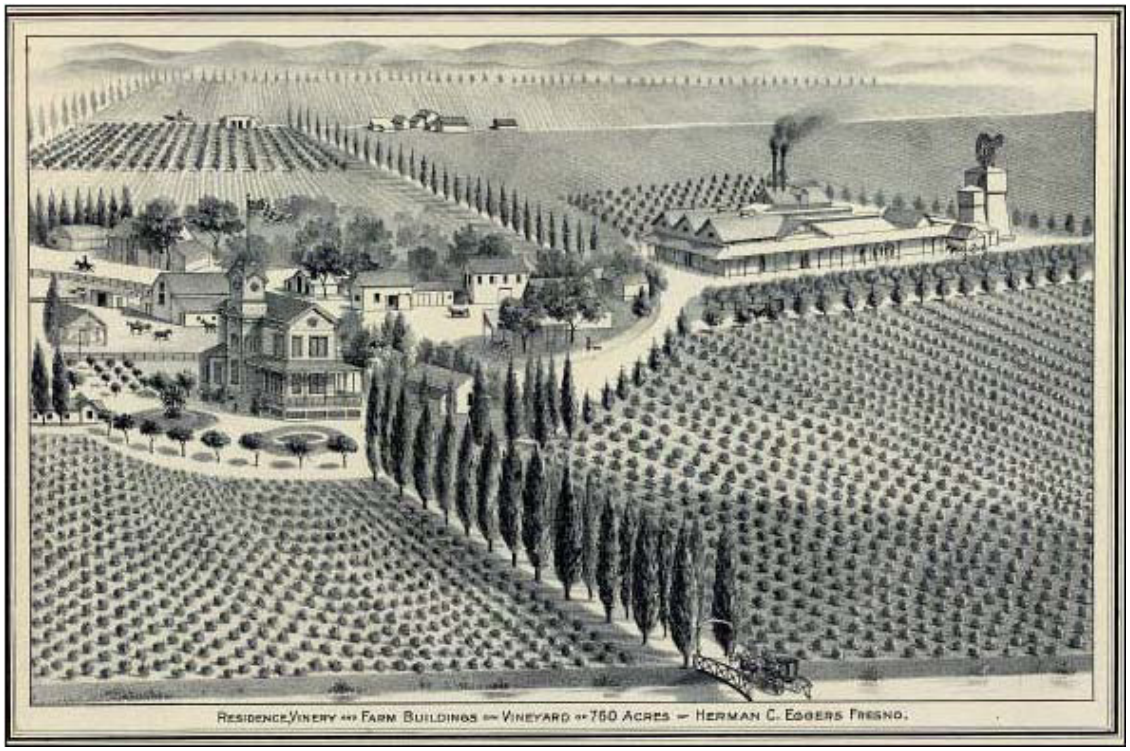

Illustration 2. The Eggers winery and vineyard in 1891 on the current site of FAT. Notice the irrigation canal in the foreground. None of these buildings survive today. Illustration from Thomas Thompson's Atlas of Fresno County.

Others in the area sold their land for the development of agricultural colonies. Such colonies were a popular means of land settlement in Fresno County from the 1870s to the 1890s. Generally, there were three types of colonies: those inhabited by people of common interests, large self-sufficient settlements, and land development schemes, which were colonies in name only. The three colonies established in the area of the FAT in the late 1870s, the Scandinavian, Nevada, and Temperance, were largely land development schemes (Illustration 1).[13]

San Franciscan Charles A. Henry developed the Scandinavian colony on land purchased from Henry Voorman in 1878. The western portion of FAT property occupies land that was once part of this colony. Promoters initially restricted sales of land in the colony to those of Nordic descent, but soon dropped that provision. The land sold quickly in 20 and 40-acre lots and in 1879 the first settler arrived.

[13] "Historic Architertural Survey Report," 15, 16.

The colony began with a single 640-acre section, but soon added two more sections and had sold nearly every lot by 1882. The KRFCC provided water to this land, which grew primarily grapes and fruit trees.[14]

The Temperance Colony consisted of a single section of land southeast of FAT. The land at 1442 North Fowler Avenue (Map Reference 4) and 6672 East Floradora Avenue (Map Reference 5) were first subdivided and developed as part of this colony. Moses Church began selling the land in 1878 in 20-acre tracts. At first Church, a Seventh Day Adventist, required vows of abstinence from alcohol of settlers, it is not known how strictly he enforced this provision. Church irrigated the colony by the Mill Ditch, which passed along its northern boundary. Grapes were the dominant crop and one of the larger vineyards was that of Henry H. Backer. Part of the Backer Vineyard was located at 6672 Floradora Avenue (Map Reference 5) in the APE. Backer settled the land in the late 1870s and planted it to grapes. He built a residence and barn on his property and eventually expanded his landholdings to other sections and incorporated the Backer Vineyards Company with his sons in 1904. The Backers innovated a method of packing grapes in sawdust, which allowed shipment to the East Coast. The Backer Vineyards continued in this area until the 1920s. None of the Backer Vineyard buildings, or any other buildings from the late nineteenth/early twentieth centuries, are extant in the APE.[15]

A third colony, the Nevada Colony, encompassed three sections south of FAT. Two properties in the APE, 5993 East Olive Avenue (Map Reference 2) and 5950 East Olive Avenue (Map Reference 3) were first subdivided as part of this colony. Church sold the land in 1879 to S. A. Miller, editor of the *Fresno Republican,* who became the colony's chief promoter. Miller, a former Nevada miner, enticed many of his Nevada acquaintances to invest in the colony. As opposed to the Temperance and Scandinavian colonies, land in the Nevada Colony sold in larger parcels. More common were tracts of 80 and 160 acres, the majority of it planted

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14 Lilbourne Alsip Winchell , History of Fresno County and the San Joaquin Valley (Fresno: A. H. Cawston, [n.d.]), 138; Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," California Historical Quarterly 25 (June 1946): 169, 170.

15 *Fresno Republican,* 7 June 1879; Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919), 264, 1721; Thickens, "Pioneer Agricultural Colonies," 169; *History of Fresno County, California with Illustrations*, 228; Thompson, *Official Historical Atlas*; W. Harvey Sr., *Atlas of Fresno County, California* (Fresno: W. Harvey Sr., 1907), 23; Progressive Map Service, *Progressive Atlas of Fresno County* (Fresno: Progressive Map Service, 1920), 29; Progressive Map Service, *Key Map of Fresno County and Portions of Kings and Tulare County Ownership Atlases* (Fresno: Progressive Map Service, 1935), 41.

in vineyards. This colony also received water from the Mill Ditch.[16]

The agricultural nature of the area near FAT persisted into the twentieth century with vineyards and fruit orchards the prevailing plantings. By 1907, a north/south running Southern Pacific

Railroad line entered the area, passing by the eastern edge of Section 29, the site of the future FAT. A spur extended from this line into Section 29 by 1921 to access a vineyard warehouse. At about the same time, the Fresno Interurban Railroad laid east/west running tracks along the southern boundary of Section 29, parallel to the Mill Ditch (Illustration 3). By 1946, the Atchison Topeka and Santa Fe Railroad purchased these tracks. Two of the parcels in the APE (Map Reference 2 and Map Reference 5) contain buildings built about 1930.[17]

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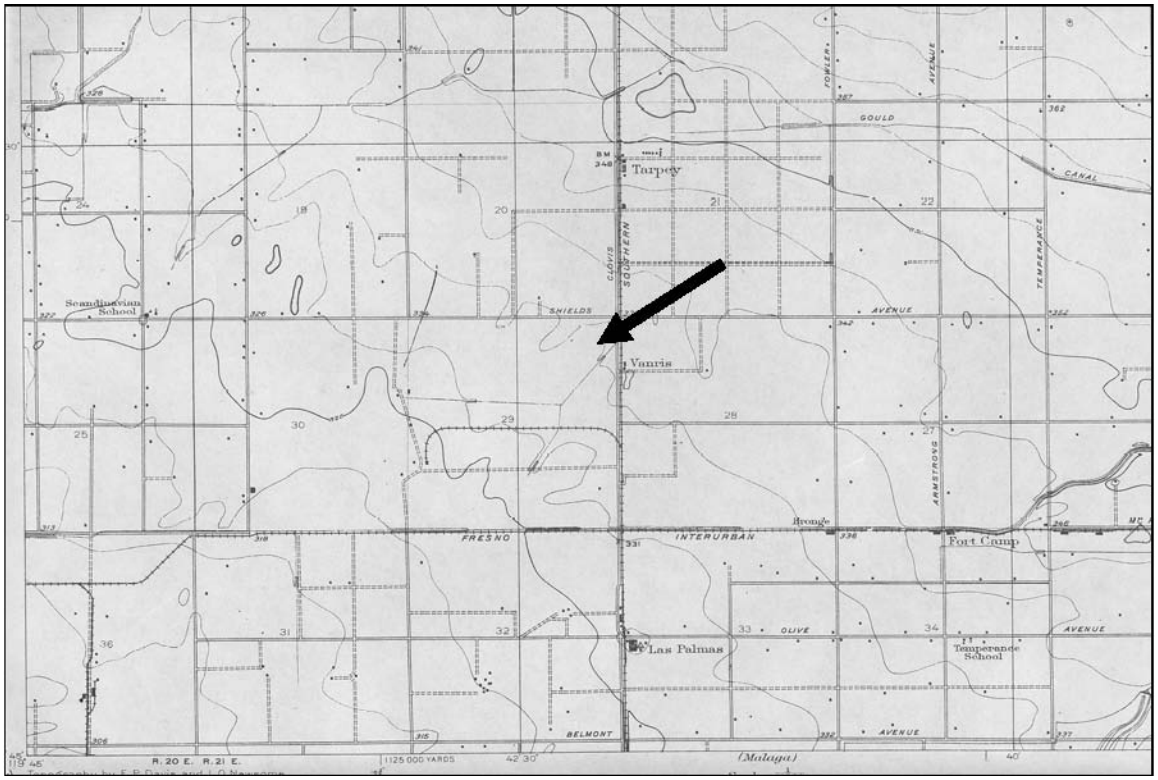
[16] *Fresno Republican* 25 January 1879; Vandor, *History of Fresno County*, 263-264; *History of Fresno County, California with Illustrations*, 115; *Fresno Republican* 13 December 1879; 5 August 1882; *History of Fresno County, California with Illustrations*, 115; *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892), 64.

[17] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, E-4; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

Illustration 3. 1923 USGS Clovis Quadrangle showing the sparsely settled region near the future site FAT on Section 29. Notice the north/south tracks of the Southern Pacific and the east/west tracks of the Fresno Interurban Railroad. Arrow indicates Section 29.



The agricultural land use pattern in this area began to change in 1941 with the construction of the Fresno Army Air Base/Hammer Field discussed below (Illustration 4). During the following decades, the urban areas of Fresno and Clovis began encroaching into the area from the south, west, and north as these communities experienced population growth. The relocation of Fresno State College, today's California State University, Fresno, in the 1940s also brought development into the area. It is during the post-war period of the 1940s and 1950s that buildings on two of the parcels in the APE (Map Reference 3 and Map Reference 4) were built. FAT is currently surrounded by development on the north, south, and west. In recent years, pockets of residential and commercial development have also begun to appear on the landscape east of FAT. Despite these changes, the area east and southeast of FAT remains largely agricultural.[18]

[18] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site

Illustration 4. Aerial view of the Fresno Army Air Base/Hammer Field under construction in May 1941. Photo courtesy of the Map Library at California State University, Fresno.

The buildings in the APE not on FAT property were built between 1930 and 1960 and reflect the architectural trends of their particular era. The building at 5993 East Olive Avenue (Map Reference 2), built in the 1930s, is a Minimal Traditional style house. This style is characterized by a front facing gable, medium pitch roof, and large chimney. It developed in the 1930s, and was a continuation of the small house design tradition that dates to the nineteenth century. Ornamented houses were economically infeasible for moderate homebuyers, and the emphasis of simplicity and unadorned surfaces of the Modern architectural movement began to modestly influence domestic architecture. Considered a "compromise style," the Minimal Traditional house reflected the form and shape of earlier housing styles, but without the decorative detailing.

The building at 5950 East Olive Avenue (Map Reference 3), constructed about 1950, is a Ranch style house characterized by its single story, low to the ground

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Operations History," E-4; Aerial Photographs 1937, 1950, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

construction, wide façade, wide eaves, and Spanish inspiration. The style was the most popular in the nation during the 1950s and 1960s. The residence at 1442 North Fowler Avenue is a similar style known as Adobe Ranch. Adobe buildings date to earliest days of European settlement in California. Many missions, houses, and public buildings used adobe bricks in their construction. The style gradually faded out after 1850, and by the late nineteenth century virtually no adobe buildings were being built.[19]

A revival of adobe construction occurred in the middle decades of the twentieth century. Builder Hugh W. Comstock of Carmel, California popularized the post-adobe method. The technique employed sturdy timber post framing with adobe bricks placed between the posts. In Fresno, architects Ernest J. Kump and Charles H. Franklin began building adobe houses in the 1930s. The pair built a cluster of Adobe Ranch style homes on north Wilson Avenue. These are not post-adobe houses, but appear to be constructed without framing, although they may have concealed steel framing. Adobe construction continued to be popular in Fresno and throughout California into the 1950s.[20]

2.2. Flight in Fresno County

As Fresno County became a prosperous agricultural area, Fresno City became a principal urban area in the southern San Joaquin Valley. By the early twentieth century, Fresno, along with Bakersfield, was a focal point of the region for commerce, trade, and entertainment. It also became a regional hub for aviation in the years following World War I.

2.2.1. Early Aviation in Fresno

Aviation began in Fresno County around 1920. Many of the flights at this time were by exhibition flyers, the military, and the post office airmail deliveries.[21] By

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[19] "*Brief 5: Preservation of Historic Adobe Buildings*." Heritage Preservation Services. www2.cr.nps.gov/; Virginia
McAlester and Lee McAlester, *A Field Guide to American Houses* (New York: Alfred A. Knopf, 2005), 129-136

[20] Information on architects and adobe houses in Fresno available at http://historicfresno.org/. Accessed September 2006; Hugh M. Comstock, Post-Adobe (Carmel-by-the-Sea, California: Hugh W. Comstock, 1948), passim; George C. Follis and Louis E. Dobson, How to Build Adobe and Concrete Block Houses (Culver City, California: Murray and Gee, Inc., 1948), passim.

[21] [21] Charles Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s* (Fresno, California: Panorama Books, 1986), 261, 273

1920, Fresno was a stop on the airmail route of the post office between Los Angeles and San Francisco.[22] As aviation matured, so did airports. The first landing sites were flat, open fields with minimal, if any, associated facilities. Gradually cities in Fresno County and elsewhere began to build more sophisticated airports, often times encouraged by the post office or military with the promise of an airmail station or air base. Research did not reveal what the facilities were like at Fresno in this early period, but planning did begin for a "municipal airport" in August of 1925. Proposals for the new 300-acre airfield called for military, commercial, and air mail facilities on a site seven and a half miles north of the city.[23]

After construction of this new municipal airport, air traffic into Fresno continued to increase. It remained a station on the Seattle to Los Angeles air mail route and received its first commercial passenger flights. In 1925, congress passed the Air Mail Act transferring mail carrying from the post office to private companies, an action that gave birth to the first commercial airlines. Airlines such as Varney Air Lines (later United Airlines), Western Air Express (later Trans World Airlines), and Robertson Aircraft Corporation (later American Airlines), which began as airmail carriers, soon started carrying other cargo and passengers. A Maddux Airlines twelve passenger, tri-motor monoplane began a service between San Francisco and San Diego, with a stop in Fresno, in 1928. The route also made stops in Oakland, San Jose, Bakersfield, and Los Angeles. Beacon Airways and California National Airways also served the Fresno airport at this time.[24]

The importance of aviation to Fresno became apparent by the late 1920s. Fresno voters rejected a bond issue to fund improvements to the municipal airport in November 1928, causing the City Commission to terminate the city's lease of the property. This seeming lack of support for aviation actually was an endorsement for the future, as voters rejected the existing airport because of its great distance (seven miles) from the city. Contrary to airport planning today, which requires

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22 [22] "Air Mail Boxes," *Los Angeles Times,* 1 January 1921, IV18.

23 [23] "Fresno Planning Airport," *Los Angeles Times,* 23 August 1925, G9; "Fresno to Drop Lease on Airport," *Los Angeles Times,* 9 November 1928, 15; Janet R. Daly Bednarek, *America's Airports: Airfield Development, 1918 1947*, 14-18.

24 "To Extend Air Mail Service to the North," *Los Angeles Times,* 6 June 1925, A13; Bednarek, *America's Airports*, 14-18, 41, 68, 167-172; Carl Solberg, *Conquest of the Skies* (Boston: Little, Brown and Company, 1979), 31, 34, 35; "New Plane Service Begun," *Los Angeles Times,* 15 April 1928, 2; "Army Plane Smashes Up At Fresno," *Los Angeles Times,* 26 April 1930, A8; "Cape Horn Hop Set for Today," *Los Angeles Times,* 17 April 1928, 2; "Fresno Fliers Here," *Los Angeles Times,* 17 June 1928, G9.

their placement far from urban development, planning in the early twentieth century called for airports to be close to the communities they served. Citizens and civic leaders understood that to keep pace with advances in aviation and its rival cities, Fresno needed an airport close to the city center.[25]

In January 1929, former State Senator W. F. Chandler donated 100 acres of land one and a half miles west of downtown to the City of Fresno for a municipal airport. Fresno built an up-to-date facility named Chandler Field at the site and opened it the same year.[26] Chandler Field continued to provide Fresno with airmail and commercial passenger service, and hosted flying exhibitions.[27] The airfield also experienced increasing use as a stopover field by military aircraft enroute to Army Air Corps bases such as Mather Field near Sacramento and March Field near Riverside, both of which had existed since 1918.[28]

The Army Air Corps had gradually grown since 1920 when the Congress created it predecessor, the Air Service, as a combatant arm of the US Army in 1920. Early duties of the Air Service were largely observational. In 1926, the Air Service changed its name to the Air Corps and began an expansion that lasted until 1933. Over that period, the Air Corps shifted away from observational aviation and added more combat squadrons. The Air Corps became interested in Chandler Field during this expansion and city officials entered into discussions with military officials in 1933 to make the airport part of the army's growing network of airfields.[29]

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25 [25] "Fresno to Drop Lease on Airport," *Los Angeles Times,* 9 November 1928, 15; "Appointment Raises a Row," *Los Angeles Times,* 10 October 1929, 12; George R. Goethals, "The Present Status of Airport Engineering," *The Military Engineer* 23 no. 129 (1931): 231.

26 "Fresno Voters to Accept Gift of Civic Airport," *Los Angeles Times,* 18 January 1929, 10; "Appointment Raises a
Row," 12.

27 [27] "Fresno May Not Drop Tax On Gasoline," *Los Angeles Times,* 18 June 1931, 11; "Fresno Plans Aerial Circus,"
Los Angeles Times, 2 February 1934, 5; "Plane Starting New Mail Route Lands in Fresno," *Los Angeles Times,* 6 September 1937, 9.

28 "Army Plane Smashes Up at Fresno," Los Angeles Times, 26 April 1930, A8; "Bomber Collides with Wire Fence," Los Angeles Times, 7 May 1937, 18; Warren A. Beck and Ynez D. Haase, Historical Atlas of California (Norman, Oklahoma: University of Oklahoma Press, 1974), 87.

29 [29] "Airport at Fresno May Become Army Field Unit," *Los Angeles Times,* 4 December 1933, 6; Maurer Maurer, *Air Force Combat Units of World War II* (Washington, D.C.: Office of Air Force History, 1983), 4-7.

This plan did not come to fruition, but the Army remained interested in citing an airfield in Fresno. The Air Corps began dramatic expansion in preparation for World War II after President Roosevelt's call for increased air power in 1939. Congress responded and approved $40 million in appropriations for improvements to existing airports and construction of new airports deemed important to national defense, nearly all of which were in Texas, Florida, or California. Because of its strategic position on the West Coast, fears of Japanese attack, and the state's naturally good weather, California became home to 44 major army air bases during World War II. In 1939, it had only three: McClellan Air Base, March Air Base, and Hamilton Air Base. The army expanded these existing bases and built many other smaller fields throughout the state. Negotiations began between Fresno city officials and the War Department concerning an army air base in Fresno in 1939.[30]

2.2.2. Fresno Army Air Base/Hammer Field

In August 1940, War Department officers arrived in Fresno to select a site for an air base in the San Joaquin Valley. The military announced in October 1940 that it had decided on Chandler Field for an Army Air Corps bomber base, contingent upon the city purchasing land adjacent to the airport and improve existing facilities. Fresno agreed to these conditions and began fulfill the Army's demands. In January of 1941, however, as construction was about to begin, General J. E. Fickle announced that the army had abandoned its plans for Chandler Field, citing inadequate space and proximity to development as the reasons. The army chose instead a site ten miles southwest of Fresno near Raisin City. This site did not suit the military either and General Fickle suggested that the City of Fresno buy 500 acres six miles northeast of Fresno bounded by Clovis, Shields, Winery, and McKinley avenues. The city acceded to the Army's request and ultimately purchased 800 acres at the location. The city and the federal government then reached an agreement for tenancy whereby the federal government would lease the land for one dollar per year for an unspecified duration. Within the lease was a provision that if the army abandoned the base, any improvements would revert to the city.[31] Fresno Army Air Base officially

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[30] Maurer, 7; Bednarek, America's Airports, 151, 152, 155; Clough, et al., Fresno County in the 20th Century, 60; "California Historic Military Buildings and Structures Inventory, Volume 3," JRP Historical Consulting Services, March 2000, 7-9, 7-10. Mather Field closed in 1923 and reopened in 1941.

[31] "Fresno Awarded Bomber Base," *Los Angeles Times,* 17 October 1940, 8; "Air Base Site Shift Approved," *Los Angeles Times,* 26 January 1941, 16; Charles Clough, et al., *Fresno County in the*

opened on April 3, 1941 and contractors George A. Fuller Company of Los Angeles began construction. In the same month, the army let an $872,855 contract for "temporary" buildings at the base. By August 1941, the base had 2,400 troops and 135 buildings; by November workers finished construction of a 7,200 foot runway (Illustration 5). The Army renamed the air base to Hammer Field in January 1941. It was designated the 4th Airforce Replacement Depot under command of the 4th Air Force in San Francisco and was a training base for B-18, B-17, and B-24 bombers. Aircraft from Hammer Field also flew submarine reconnaissance missions along the West Coast. On the air base grounds was a large, 932-bed hospital that served other bases in the state and was an Army Air Force nurses training center. In March 1944, the 319th Wing Headquarters arrived at Hammer Field and began night fighter training with P-61 Black Widow aircraft. During the war, the government purchased an additional 800 acres west and north of the original property to expand the facility.[32]

20th Century: from 1900 to the 1980s (Fresno, California: Panorama Books, 1986), 60, 275; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, 3; Warren A. Beck and Ynez D. Haase, *Historical Atlas of California* (Norman, Oklahoma: University of Oklahoma Press, 1974), 87.

32 [32] Charles Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s* (Fresno, California: Panorama Books, 1986), 276; "Army-Navy Orders Drop," *Los Angeles Times,* 8 April 1941, 11; "Fresno Air Terminal, Site Operations History: Final Report," TechLaw, Inc., 1992, 4, 8.

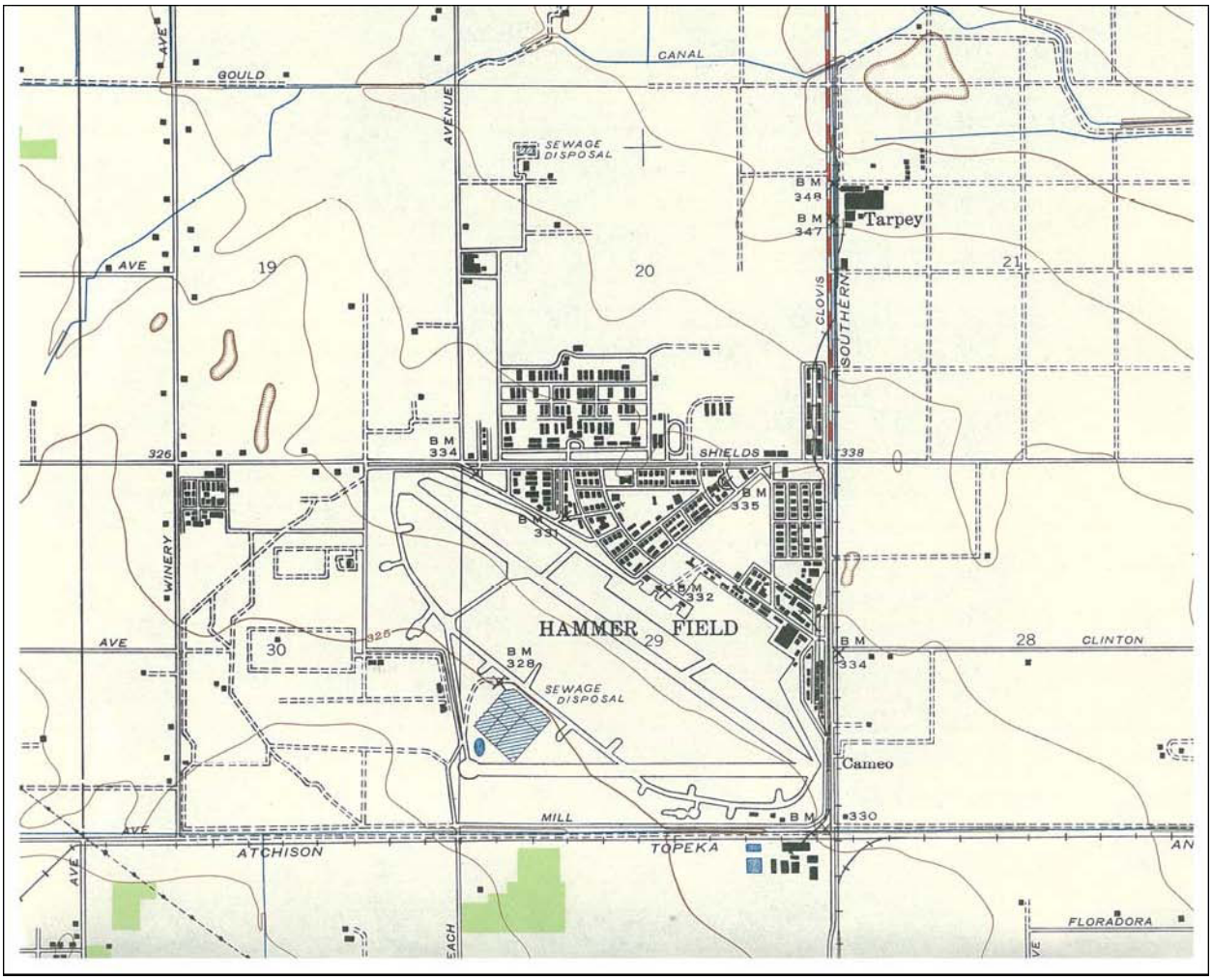

Illustration 5. Hammer Field shown on the 1946 USGS *Clovis Quadrangle*. The properties on the FAT property evaluated in this report are located in the northeast part of Section 29.

2.2.3. Fresno Air Terminal/Fresno Yosemite International Airport

After the war, the War Department deactivated Hammer Field, completing this process in April 1946. The City of Fresno assumed control of the airport section of Hammer Field in December 1946 and renamed it Fresno Air Terminal (FAT). The first commercial flight flew out of FAT in October 1947. Two years later, the War Assets Administration canceled the Hammer Field lease options, and quitclaimed land west of the runways to the City of Fresno and land north of the runways to Fresno State College for use as an agricultural school. The land under lease, which reverted to the city, contained 146 buildings, a 7,200-foot runway,

utilities, and all other items on the property.[33]

Of the many Army Air Bases constructed in the World War II era, most were deactivated after the war and became property of the local municipalities. This occurred at an important moment in American aviation history. The war caused the rapid advancement of aviation technology, strengthened the aircraft industry, made long distance flying routine, trained thousands of pilots, and exposed many young military personnel to flying. These factors, coupled with the introduction of coach airfare, and a general increase in leisure time and expendable income, caused dramatic changes in commercial air travel. By 1955, the number air travelers exceeded the number of rail travelers in the US for the first time. Planes became bigger and faster, and Boeing introduced the first commercial passenger jet, the Boeing 707, in 1958.[34]

The war also set the precedent of federal funding for municipal commercial airports. Prior to appropriations made by Congress in 1940 for improvements to municipal airports for use by the military, cities funded their own airports through taxes and bonds. In 1946, Congress passed the Federal Aviation Act, which provided money to local governments to build new airports and improve existing facilities. This financial assistance came as airports struggled to keep pace with the requirements of bigger and faster aircraft, more air traffic, and increased passenger counts. Jet powered aircraft raised an additional consideration for airport planners: noise. After the advents of jets, the impact of an airport on the neighboring community became a primary concern, and local governments planned new airport construction far from residential development.[35]

Fresno's plan after gaining control of the airfield was to convert it into a self-supporting civil airport. With the advancements in aviation since 1940, Hammer Field's location away from development made it an ideal site and planners envisioned it as Fresno's primary airport, and Chandler Field as a secondary airport for general aviation. FAT began acquiring additional adjacent land to provide for clear approach zones, longer runways, and future expansion. The city used some of the former buildings on the site as low-income housing, creating a community called Hammer Field Village. Other buildings went to Fresno State

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[33] "Fresno Air Terminal, Site Operations History,", 4, 5, 67, 68; Clough, et al., *Fresno County in the 20th Century*:
from 1900 to the 1980s , 63, 276, 277.
[34] Solberg, *Conquest of the Skies*, 251-252, 271-273, 345, 376, 361, 346, 396.
[35] Bednarek, *America's Airports*, 170; Merrill De Longe, "Effects of Jet Aircraft on Air Base Planning," *The Military Engineer* 326 (1956): 420-422.

College, and some were sold to private individuals. To help attain financial self-sufficiency, FAT leased buildings to companies such as North American Aviation, Universal Jet Industries, and Dow Chemical Company. In 1954, the California Air National Guard (CANG) also started to lease property at FAT, installing a $1.1 million complex in the southeast corner. CANG also extended the runway by 1000 feet in 1956, which caused the rerouting of Shields Avenue. By 1959, there were 38 tenants at FAT.[36]

From 1946 to 1959, the city spent $3.7 million on improvements at FAT, $500,000 of which came from the Federal Airport Aid Program. By the end of the 1950s, FAT property consisted of 1,475 acres. Improvements did not stop, however, and FAT continued to have its sights set on the future. In 1959, the Airport Master Development Plan provided $4 million dollars in funds, $2 million coming from the federal government for improvement to FAT and Chandler Municipal Airport. Work at FAT under this plan consisted of a new control tower, passenger terminal, fire station, maintenance building, and general aviation facility, all completed by 1962 (Illustration 6). FAT also opened land for an industrial tract by evicting the low-income tenants of Hammer Field Village and selling the 216 dwellings. In 1968, the airport reconstructed runway the main runway (29R) and the airfield taxiways.[37]

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[36] Clough, et al., *Fresno County in the 20th Century*, 277; "Guard Air Base Work Scheduled," *Los Angeles Times,* 8 February 1954, A11; "Fresno Calls $500,000 Air Terminal Bids," *Los Angeles Times,* 6 June 1956, 39; "Fresno Air Terminal, Site Operations History," 5, 67-69.

[37] "Land Use and the Fresno Air Terminal," Fresno County and Fresno City Planning Commission, 1959, 6; "Fresno May Become Major Air Terminal," *Los Angeles Times,* 15 February 1959, A10; Clough, et al., *Fresno County in the 20th Century*, 277; "Southland Views," *Los Angeles Times,* 6 April 1962, 35.

Illustration 6. Control tower constructed in 1962.

Upgrading and new construction was carried on at FAT up to the present. Remodeling the terminal and concourse occurred in 1978, 1993, and 1997, and the airport constructed a new, two level terminal in 2002. FAT changed its name to Fresno-yosemite International Airport in 1995 in an effort to attract more air travel business. Currently the airport has two runways: the main runway, 29R-11L, which is 9,222 feet long and 150 feet wide; and runway 29L-11R, which is 7,206 feet long and 100 feet wide. It is served by eight airlines with 49 daily departures and over one million passengers pass through its gates each year. The property is also home to the California Air National Guard, California Army National Guard, California Department of Forestry, US Forest Service, US Marine Corps Reserve, general aviation facilities, airport administration buildings, and a municipal golf course.[38]

3. DESCRIPTION OF RESOURCES

Fresno-Yosemite International Airport (FAT) is located on 2,300 acres, six miles northeast of downtown Fresno. Residential and commercial development surrounds the airport on the north, west, and south; land to the east and southeast is comparatively rural. The property consists of an airline terminal complex,

[38] "City of Fresno—Airports," available at http://www.fresno.gov/flyfresno/airporthistory.pdf, accessed August 2006.

airport support facilities, general aviation areas, two runways, and land leased for commercial, industrial, and recreational uses. The California Air National Guard, California Army National Guard, and US Marine Corps Reserve also lease property from the airport. The northeast corner of the property is a public golf course. The resources described in the following section are on the airport proper, and in the surrounding area to the south and east.

3.1. Buildings at Fresno-Yosemite International Airport (Map Reference 1) (See Illustration 8)

Building 76-Office

Building 76 is a former Army Air Corps building constructed as part of Hammer Field around 1942 and currently used as an office (Illustration 7). It is a single story building with a long, rectangular plan and faces northeast. The building sits on concrete piers, has wood framing and a medium pitch, side gable roof with overhanging eaves and exposed rafters. On the south corner of the building is a small front gable element. Along the ridge of the roof are several monitor vents; and on the roof's southwest slope are modern HVAC systems mounted on platforms. Stucco covers the original wood siding and composition shingles top the roof. On both the front and rear of the building are several entrances. Those on the front are accessed by modern concrete steps with concrete handicapped accessibility ramps. Some have solid concrete balustrades and others have metal pipe railings. Fenestration consists of 6/6 double hung windows placed singly and in pairs.

Illustration 7. Building 76, camera facing southeast. 8/8/06.

Illustration 8. Location of buildings on FAT property.

Building 97-Office

Building 97 is a former Army Air Corps building constructed as part of Hammer Field around 1942 of similar design and materials as Building 76. It is a single story office building with a rectangular plan and faces southeast. It sits on concrete piers and has a wood frame and medium slope side gable roof with overhanging eaves and exposed rafters ends. Along the ridge of the roof are monitor vents; and on the roof's northwest slope is a modern HVAC system on a platform. There appears to be a shed roof along a segment of the southeast façade. Stucco covers the original wood siding and composition shingles top the roof. Two entrances are on the northwest façade, both accessed by concrete steps and modern doors. Fenestration consists of 6/6 double hung windows.

Building 66-Warehouse

Building 66 is an approximately 19,000 square foot former Army Air Corps warehouse constructed as part of Hammer Field around 1942 (Illustration 9). It is a one and a half story building with a rectangular plan and faces southwest. It has a concrete foundation, wood framing and a medium slope, parallel gable roof with narrow eaves. Stucco covers the original wood siding and composition shingles top the roof. Along each ridgeline are three, small vented monitors and on each slope are modern HVAC systems. The building has several top hung sliding doors on several sides. Two similar doors once existed on the southeast side, but have been replaced by modern metal roll-up doors. A loading dock accessed by a below grade ramp with a metal pipe and chain fence leads to one of the doors. A metal personnel door is on the southeast side of the building as well as the northwest and southeast sides. Fenestration consists of modern fixed pane and one six pane fixed window on the northeast side.

Illustration 9**.** Building 66, camera facing west. 8/8/06.

Building 85-Bathhouse/Associated Buildings Building 85 is a single story bathhouse constructed as part of Hammer Field as a bathhouse around 1942 (Illustration 10). It has a roughly rectangular plan and faces onto a swimming pool to the north. The buildings concrete foundation supports board form concrete walls and a flat roof with wide overhanging eaves on the north side. The north side of the building has concrete walls with deep horizontal grooves. Concrete

steps leading to the roof on both the east and west ends have concrete support posts and metal pipe railings. Vertical groove wood panels and a wood door enclose the area beneath the west end stairs. Fenestration consists of four pane windows covered by heavy mesh screens. Three entrances project out from the front façade, one in the middle and one on each end.

To the west of the bathhouse and separated only by a narrow walkway is a second building also referred to as Building 85. It is a single story building with a square plan constructed by the Army Air Corps probably as a decontamination building about the same time as the bathhouse. Board form concrete walls clad in stucco sit on a concrete foundation and support a flat roof. Fenestration consists of metal sash casement windows and a modern metal sash sliding window. A personnel entrance with a security gate is on the north side of the building.

Building 86-Pool

Building 86 is a former Army Air Corps swimming pool constructed as part of Hammer Field around 1942 (Illustration 10). It is 166 feet long by 55 feet wide and surrounded by a concrete apron. Two diving boards are on the east and west sides of the deep end.

Illustration 10. Building 85 and Building 86 (Pool), camera facing south. 8/8/06.

Building 75-Hangar

Building 75 is an approximately 89,725 square foot airplane hangar constructed around 1955 (Illustration 11). It is an approximately four story tall, arched steel truss building with a rectangular plan. The hangar sits on a concrete foundation and is clad in corrugated metal sheets. The length of the building is aligned along a northwest/southeast axis and has pocket/leaf doors that open on both ends. On the northwest side of the building is an attached shed roof that protects the twelve sliding doors that cover the nearly three story, full width opening. The doors are set on tracks on the top and bottom and are enclosed, six each in compartments, on both ends of the tracks. Personnel doors are at each end of this side of the building. On the southwest end of the building, the doors are approximately twice as wide and contain sets of metal sash industrial windows. These sets of doors are visible when open, as is the steel framing for the doorway. Nine pane metal sash awning casement windows are on the northeast and southwest sides. The top six panes pivot open on a central axis.

Illustration 11. Building 75, camera facing southeast. 8/8/06.

3.2. Buildings and Structures in the APE outside of FAT

In addition to the buildings described above FAT proper, five other properties were in the APE southeast of FAT. The following section describes these buildings and structures and Illustration 12 shows their location relative to the airport.

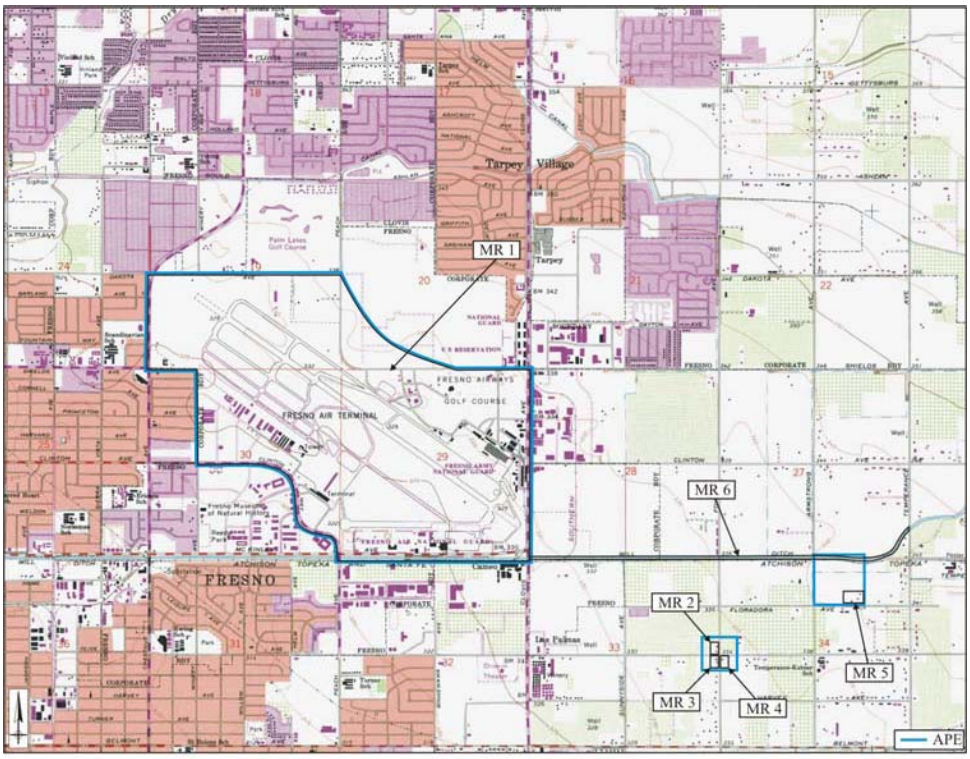

Illustration 12. Map showing the APE with map reference numbers (MR#).

5993 East Olive Avenue (Map Refernce 2)

This single story, 1,342 square foot Minimal Traditional style house constructed around 1935 has an irregular plan and a south facing façade (Illustration 13). The walls are concrete ashlar masonry set on a concrete foundation. Topping the building is a medium slope, cross gable roof with exposed rafters. Vertical siding is in the gable ends and composition shingles clad the roof. At the gable peaks are louvered vents. An integral shed roof on the front façade covers a half-width porch accessed by three concrete steps; doubled 4x4 posts support the porch roof. At the rear of the house is an enclosed gable roof entryway.

Fenestration consists of 1/1 double hung metal windows with screens. On the front façade is a nine light, fixed pane window with narrow 1/1 double hung windows on each side. An oriel window adorns the east side of the house. On the east side of the building is an exterior concrete chimney with stepped sides.

Also on the 1.19-acre lot northwest of the house is a single story shed/garage. It has a concrete foundation, wood framing and a medium pitch, side gable roof with a center cross gable. Horizontal drop siding clad the walls and composition shingles top the roof. In the cross gable portion of the building are two top-hung sliding doors made of vertical wood lumber. On each side of the center gable are

personnel entrances without doors.

Illustration 13. 5993 East Olive Avenue, camera facing north. 8/8/06.

5950 East Olive Avenue (Map Reference 3)

This parcel contains a residence and an attached shed constructed around 1950. Trees, vegetation, and a fence heavily obscured both buildings. The residence is a single story building with a rectangular plan and an east facing façade. Wood framing rests on a concrete foundation and supports a medium pitched, side gable roof with shallow eaves. Stucco sheaths the walls and composition shingles top the roof. The windows are sliding metal sash and the entryway is recessed.

Attached to the south end of the house is a one and a half story shed. It has a concrete foundation, steel framing, and a side gable roof. The roof is clad in corrugated metal sheets; it was not possible to identify the siding of the building, although it appears to be wood. The north end of the shed is enclosed with a window and roll-up garage door on the east end; a personnel door is on the south end of this portion of the shed. On the south end of the building is an open bay.

1442 North Fowler Avenue (Map Reference 4)

This residence is a 3,000 square foot, single story Ranch style house with an irregular plan and a west facing façade (
Illustration 14). A concrete foundation supports adobe brick walls and a medium

pitch hipped roof. The roof has gable ends near the roof peaks containing wood slat vents and exposed rafters. There is a cross gable section in the rear of the house and the south half of the roof is stepped down from the north half. The gable end and a portion of the rear wall are clad in board and batten siding; wood shingles cover the roof. Fenestration consists of metal frame casement sets. The front door is set at ground level and is made of vertical wood planks. On each side of the entrance are glass block sidelights.

Illustration 14. 1442 North Fowler, camera facing southeast. 8/8/06.

6672 Floradora Avenue (Map Reference 5)

This property contains a residence, a garage, and a barn. The garage, constructed about 1950, is the only building more than fifty years old. A faux wood fence is at the perimeter of the property and a thick hedge is in front of the buildings, somewhat obscuring the view. Between the house and barn on the property is a one and a half story, three bay garage with a rectangular plan that faces south. The concrete foundation supports a wood frame and a medium slope, side gable roof. Board and batten siding covers the walls and corrugated metal sheets top the roof. On the west end of the south façade is a personnel door. No windows were visible on the building.

Mill Ditch (Map Reference 6)

The section of Mill Ditch evaluated for this report is approximately two miles long between Clovis Avenue on the west and Temperance Avenue on the east (Illustration 15). It was originally constructed in 1878. The canal appears trapezoidal in cross section and is approximately 60 feet wide. An accurate assessment of depth and bottom width was not possible because of water in the canal. The bottom and sides are unlined, although there are segments with concrete rubble rip rap.

Bridges cross the canal at Fowler Avenue, Armstrong Avenue, and Temperance Avenue. There are gravel access roads on both sides of the canal at Fowler Avenue and Armstrong Avenue. On the south side of the canal west of Fowler Avenue there are railroad tracks; agricultural land is north and south of the canal at this point. To the west of the Armstrong Avenue bridge is a drop gate. Agricultural land surrounds the canal on all sides at Armstrong Avenue except for a farmhouse on the southwest corner of this intersection. At Temperance Avenue an access road is present only on the north side of the ditch. West of the Temperance Avenue bridge a water pipe crosses the canal. At the northwest corner of this intersection is a subdivision, at the southwest corner is a residence, at the northeast corner is a farm building, and on the southeast corner is agricultural land.

Illustration 15. Mill Ditch at Armstrong Avenue, camera facing east. 8/8/06.

4. FINDINGS AND CONCLUSIONS

This section evaluates buildings and structures in the APE for this project, which are at least fifty years old, for their potential historic significance. The southeast section of the FAT property was previously inventoried for the NRHP and CRHR in 2000 at which time no historically significant properties or historic resources were identified. This section presents the evaluation criteria used for this study and the historic evaluation. The residences outside the FAT proper are also evaluated in DPR 523 forms in Appendix B.

No building or structure in the APE for this study is historically significant and, therefore, they do not appear to meet the criteria for listing in the NRHP and are not historic properties under the NHPA Section 106 regulations. The buildings or structures were also evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria of the CRHR outlined in Section 5024.1 of the California Public Resources Code and do not appear to be considered historical resources for the purposes of CEQA.

4.1. Evaluation Criteria

The eligibility criteria for listing properties in the NRHP are codified in 36 CFR 60 and expanded upon in numerous guidelines published by the National Park Service. Buildings, structures, objects, sites, and districts listed in, eligible for listing in, or appear to meet the criteria for listing in the NRHP are considered historic properties under the regulations for Section 106 of NHPA. Eligibility for listing buildings, structures, objects, sites, and districts (i.e., resources) in the NRHP rests on twin factors of significance and integrity. A resource must have both significance and integrity to be considered eligible. Loss of integrity, if sufficiently great, will overwhelm the historic significance a resource may possess and render it ineligible. Likewise, a resource can have complete integrity, but if it lacks significance, it must also be considered ineligible. *Historic significance* is judged by applying the NRHP criteria, identified as Criteria A through D. The NRHP guidelines state that a historic resource's "quality of significance in American history, architecture, archeology, engineering, and culture" must be determined by meeting at least one of the four main criteria. Properties may be significant at the local, state, or national level. The NRHP criteria are:

Criterion A: association with "events that have made a significant contribution to the broad patterns of our history;"

Criterion B: association with "the lives of persons significant in our past;"

Criterion C: resources "that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values;"

Criterion D: resources "that have yielded, or may be likely to yield, information important to history or prehistory."[39]

Integrity is determined through applying seven factors to the historic resource. Those factors are location, design, setting, workmanship, materials, feeling, and association. These seven can be roughly grouped into three types of integrity considerations. Location and setting relate to the relationship between the property and its environment. Design, materials, and workmanship, as they apply to historic buildings, relate to construction methods and architectural details. Feeling and association are the least objective of the seven criteria and pertain to the overall ability of the property to convey a sense of the historical time and place in which it was constructed.

CEQA requires consideration of the possible impacts to and the evaluation of resources using the criteria set forth by the CRHR. In order to be determined eligible and considered a historical resource for the purpose of CEQA, each resource must be determined to be *significant* under the local, state, or national level under one of four criteria (Criteria 1 through 4) and retain historic *integrity*. The CRHR criteria closely parallel those for the NRHP (Criteria A through D).[40]

4.2. Evaluation of Fresno-Yosemite International Airport

JRP concludes that none of the properties within the APE for this project appears to meet the criteria for listing in the NRHP and do not appear to be historic properties under the NHPA Section 106 regulations. The properties within the APE for this project were also evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria of the CRHR

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[39] US Department of the Interior, National Park Service, "Guidelines for Applying the National Register Criteria for
Evaluation," National Register Bulletin 15, 2; Clough, et al., *Fresno County in the 20th Century*, 276.

[40] [40] California Code of Regulations, Title 14, Chapter 11.5, "California Register of Historical Resources," effective January 1, 1993.

outlined in Section 5024.1 of the California Public Resources Code. None of the properties within the APE appear to be significant under those criteria and are not considered historical resources for the purposes of CEQA.

There are six buildings on the property of FAT in the APE that are more than 50 years old: Buildings 76, 97, 66, 85, 86, and 75. There are five additional properties in the APE not on FAT property: 5993 East Olive Avenue, 5950 East Olive Avenue, 1442 North Fowler Avenue, 6672 East Floradora Avenue, and the Mill Ditch. The following provides an evaluation of the FAT and other properties in the APE applying NRHP and CRHR criteria.

4.2.1. Buildings at FAT (Map Reference 1)

Five of the six buildings on FAT in the APE were built around 1942 as part of the Fresno Army Air Base/Hammer Field and are associated with military expansion prior to and during the first two years of World War II, and specifically with the development of Army air bases during this time. As such, these five buildings are associated with an important event, World War II, but Fresno Army Air Base/Hammer Field is not significant within the context of the war. Hammer Field was one of many bases constructed at the beginning of World War II throughout California and the nation, but it does not stand out. As a training and reconnaissance base, it performed routine duties during the war. It did not play a vital role in the war such as supply depot, maintenance base, or defensive base. Nor were any of the buildings associated with Hammer Field individually important to the war effort. After Hammer field deactivated in 1946, these five buildings played a minor role in the operation of FAT. Therefore, Hammer Field, and buildings associated with it, are not historically significant for their association with World War II, or their association with FAT (Criterion A / Criterion 1). Neither Fresno Army Air Base/Hammer Field/Fresno Air Terminal nor the five buildings evaluated on this form have important historical associations with persons who have made significant contributions to local, state, or national history (Criterion B / Criterion 2). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, this property is otherwise documented and does not appear to be a principal source of important information in this regard.

Buildings 76 and 97 are similar in style and materials. Both were constructed from standard army plans and do not have distinctive architectural characteristics.

As such, these two buildings do not embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). Furthermore, both have compromised integrity of location, setting, materials, workmanship, and association.

Building 66, the Warehouse, is of utilitarian design and does not embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). They are simply heavily altered surviving examples of the large number of similar standard buildings constructed at the base. The building has compromised integrity of location, setting, materials, workmanship, and association.

Buildings 85 and 86, the Bathhouse and Pool, are of a common design and are not distinctive architecturally. Building 85 has retained its function as a bathhouse since its construction about 1942. It does appear, however, that the original entrance on the south side of the building is boarded up. The pool is a simple rectangle and lacks significant design characteristics. Although both retain some historic integrity from when they were constructed, neither the Bathhouse nor Pool embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3).

The sixth building on FAT, in the APE is **Building 75**, a hangar, constructed about 1955 after the closure of Hammer Field. This buildings is associated with the Fresno Air Terminal and development of industry on airport property. The tenants, North American Aviation (NAA), Grand Central Aviation, and Art Metal Incorporated, were among the largest industrial employers at the airport. NAA employed as many as 3,200 people during the early 1950s. The businesses that occupied the hangar, however, did not reach a level of significance within the context of industrial development at the airport, or in Fresno City to be considered historically important for these associations (Criterion A / Criterion 1). Building 75 does not have important historical associations with persons who have made significant contributions to local, state, or national history (Criterion B / Criterion 2).

Building 75 is also not significant architecturally. Although constructed after the war, this hangar is of the same design as military hangars constructed during World War II. The trussed arch framing covered in corrugated steel and sliding doors housed in pockets were common characteristics of Army Air Force hangars. These buildings answered the military's needs for hangars that were easy to erect and transport. Very few of the World War II era military hangars have been

found eligible for the NRHP under Criterion C because they were common and built from a standard design. As a building of the same type, Building 75 presents no innovations in terms of engineering, design, or architecture.[41] Therefore, it is lacking distinction of type, period, design, and method of construction (Criterion C / Criterion 3).

4.2.2. Buildings and Structures in the APE outside of FAT

The APE also includes two areas 1.5 miles east-southeast of the airport, which first developed as agricultural colonies in the late 1870s. Size of the tracts sold ranged from 20 to 160 acres. None of the buildings from this initial development are extant within the APE. Agriculture continues to dominate land use in this area, with some residential and commercial development present.

The property at **5993 East Olive Avenue** (Map Reference 2) is associated with pre-World War II agricultural development of this area. A previous residence was on the parcel prior to construction of the current house. The property at 5993 East Olive, therefore, does not have important associations with events significant to local, state, or national history. Additionally, research did not reveal any occupants of the address who have made significant contributions to history (Criterion B / Criterion 2).

The residence of this property is a Minimal Traditional style house characterized by a front facing gable, medium pitch roof, and large chimney. The style now referred to as "Minimal Traditional" developed in the 1930s, and was a continuation of the small house design tradition that dates to the nineteenth century. Ornamented houses were economically infeasible for moderate homebuyers, and the emphasis of simplicity and unadorned surfaces of the Modern architectural movement began to modestly influence domestic architecture. Considered a "compromise style," the Minimal Traditional house reflected the form and shape of earlier housing styles, but without the decorative detailing. The style suggests the earlier Tudor style but lacks the decorative detail and the steep roof pitch of the Tudor and also lacks the wide eaves of the Craftsman style. The residence at 5993 East Olive is a good example of a Minimal Traditional house, but it is not architecturally distinctive (Criterion C / Criterion 3). Similarly, the utilitarian shed/garage is of a common type of

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41 [41] Walter G. Hiner, "Combat Airplane Hangars," *The Military Engineer* 37, no.235 (1945): 185-188; "California Historic Military Buildings and Structures Inventory, Volume 3," JRP Historical Consulting Services, March 2000, 7-9, 7-10.

construction and is not architecturally distinctive (Criterion C / Criterion 3). Furthermore, both buildings have diminished integrity. The house has concrete steps abutting the east wall suggesting the location of a previous doorway. Also, many of the demolition of outbuildings on the parcel diminish the integrity of association and feeling, and setting. The shed/garage has missing windows and doors.

The property at **5950 East Olive Avenue** (Map Reference 3) is associated with the post-World War II development of the area. It is not, however, important within that context, or associated with persons important to local, state, or national history. The property does not have important associations with significant events (Criterion A / Criterion 1), nor do the occupants appear to have made significant contributions to local, state, or national history (Criterion B / Criterion 2). The house appears to be a modest example of a Ranch style, but an accurate determination is difficult because the view of the structure is nearly obscured by trees and other vegetation. The Ranch style is characterized by single story, low-to-the-ground construction, wide façade, wide eaves, and reflects Spanish inspiration. It was the most popular style in the country in the 1950s and 1960s and this residence does not embody the distinctive characteristics of this type (Criterion C / Criterion 3).

The residence at **1442 North Fowler Avenue** (Map Reference 4) is associated with post-World War II development of on the rural fringes of the city of Fresno. It is not, however, important within that context and does not have important associations with significant events (Criterion A / Criterion 1). Research on the property did not reveal any building occupants who have made significant contributions to local, state, or national history (Criterion B / Criterion 2). This building is an Adobe Ranch style residence defined by its single story, low-to-the-ground construction, use of adobe bricks, wide façade, wide eaves, and reflects Spanish inspiration. The style was popular in the California in the 1930s, 1940s, and 1950s with a number of Adobe Ranch houses constructed in Fresno, several of which are recognized by the City of Fresno as historically important.

A revival of adobe construction occurred in the middle decades of the twentieth century. Builder Hugh W. Comstock of Carmel, California popularized the post-adobe method. The technique employed sturdy timber post framing with adobe bricks placed between the posts. In Fresno, architects Ernest J. Kump and Charles H. Franklin began building adobe houses in the 1930s. The pair built a cluster of Adobe Ranch style homes on north Wilson Avenue. These are not post-adobe houses, but appear to be constructed without framing, although they may have

concealed steel framing. Adobe construction continued to be popular in Fresno and throughout California into the 1950s.[42] It is not know who the architect or builder of the home at 1442 North Fowler Avenue was, but it is of the era when the Adobe Ranch style was popular. The residence at 1442 North Fowler, however, is not among the best examples of this style and does not embody the distinctive characteristics of this type (Criterion C / Criterion 3).

The property at **6672 East Floradora Avenue** is a farmstead with a residence, a garage, and a barn. The garage is the only building more than fifty years old. This building is associated with the post-World War II development of this area. There has been a residence on the parcel since at least 1921. By 1937, there were as many as seven buildings on the site. The current buildings were not part of the original farmstead construction. The garage at 6672 Floradora does not have important associations with significant historical events (Criterion A / Criterion 1). Research did not reveal any occupants of the property who have made significant contributions to local, state, or national history (Criterion B / Criterion 2). This building is a utilitarian style garage of common design, construction and materials. It is not distinctive for its type, period, or method of construction (Criterion C / Criterion 3).

The **Mill Ditch** (Map Reference 6), is associated with the Fresno Canal and Irrigation Company (FCIC), the first irrigation company in Fresno County and one of the first in California to build extensive irrigation works. Irrigation transformed this part of Fresno County and was responsible for the prosperity of the city of Fresno.

Water first flowed in the main branch of the FCIC system, the Fresno Canal, in 1872, and by 1876, it extended more than twenty miles and irrigated large tracts of land east and south of Fresno City. The FCIC constructed the Mill Ditch in 1878, as a branch of the Fresno Canal. The Mill Ditch also provided power to Moses Church's Champion Flourmill until 1892 when it was declared a public nuisance and filled in. The mill was an early business in Fresno, but it was not of particular importance. The Mill Ditch did not power any other industries, and it did not set a precedent for canal delivered waterpower in Fresno.

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[42] Information on architects and adobe houses in Fresno available at http://historicfresno.org/. Accessed September 2006; Hugh M. Comstock, *Post-Adobe* (Carmel-by-the-Sea, California: Hugh W. Comstock, 1948), passim; George
C. Follis and Louis E. Dobson, *How to Build Adobe and Concrete Block Houses* (Culver City, California: Murray and Gee, Inc., 1948), passim.

The canal ultimately did irrigate extensive tracts of land east, north, and west of Fresno and made possible the establishment of agricultural colonies such as the Nevada and Temperance colonies. These colonies were two of many begun in Fresno County during the late nineteenth century and are not of particular historical importance. Certainly, the Mill Ditch is important to the lands it irrigated, but all irrigation canals are important in this regard. For such a structure to be historically significant it must rise above the ordinary and be important vis-à-vis other canals. It is, therefore, not historically significant for its association with early irrigation in Fresno County when compared to the Fresno Canal of the FCIC. The Mill Ditch is not important in this regard and it does not have important associations with historically significant events (Criterion A / Criterion 1).

The Mill Ditch is associated with Moses Church, who, with A. Y. Easterby, and others, incorporated the FCIC. Church managed the company and oversaw the construction of the FCIC system. By 1878, when Church constructed the Mill Ditch, he was the sole owner. Church is a historically important person to the history of Fresno County, but the Mill Ditch does not best represent his significance. Because Church managed the construction of the entire FCIC including the Fresno Canal, prior to construction of the Mill Ditch, these other canals, perhaps are better representatives of Church's significance. The Mill Ditch, therefore, does not have important associations with historically significant individuals (Criterion B / Criterion 2).

The design of this canal is typical canal construction and does not embody the distinctive characteristics of this type, period, or method of construction (Criterion C / Criterion 3). The Mill Ditch also has diminished integrity. The concrete rubble rip rap on its banks somewhat diminishes its integrity of materials and workmanship. It also no longer flows into downtown Fresno to provide power to a flourmill, one of the primary purposes for its construction diminishing its integrity of design and association. Additionally, the Mill Ditch has lost some of its integrity of setting, especially as it moves west and passes by industries, the airport, and dense housing tracts.

In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, the properties listed above are otherwise documented and do not appear to be a principal source of important information in this regard.

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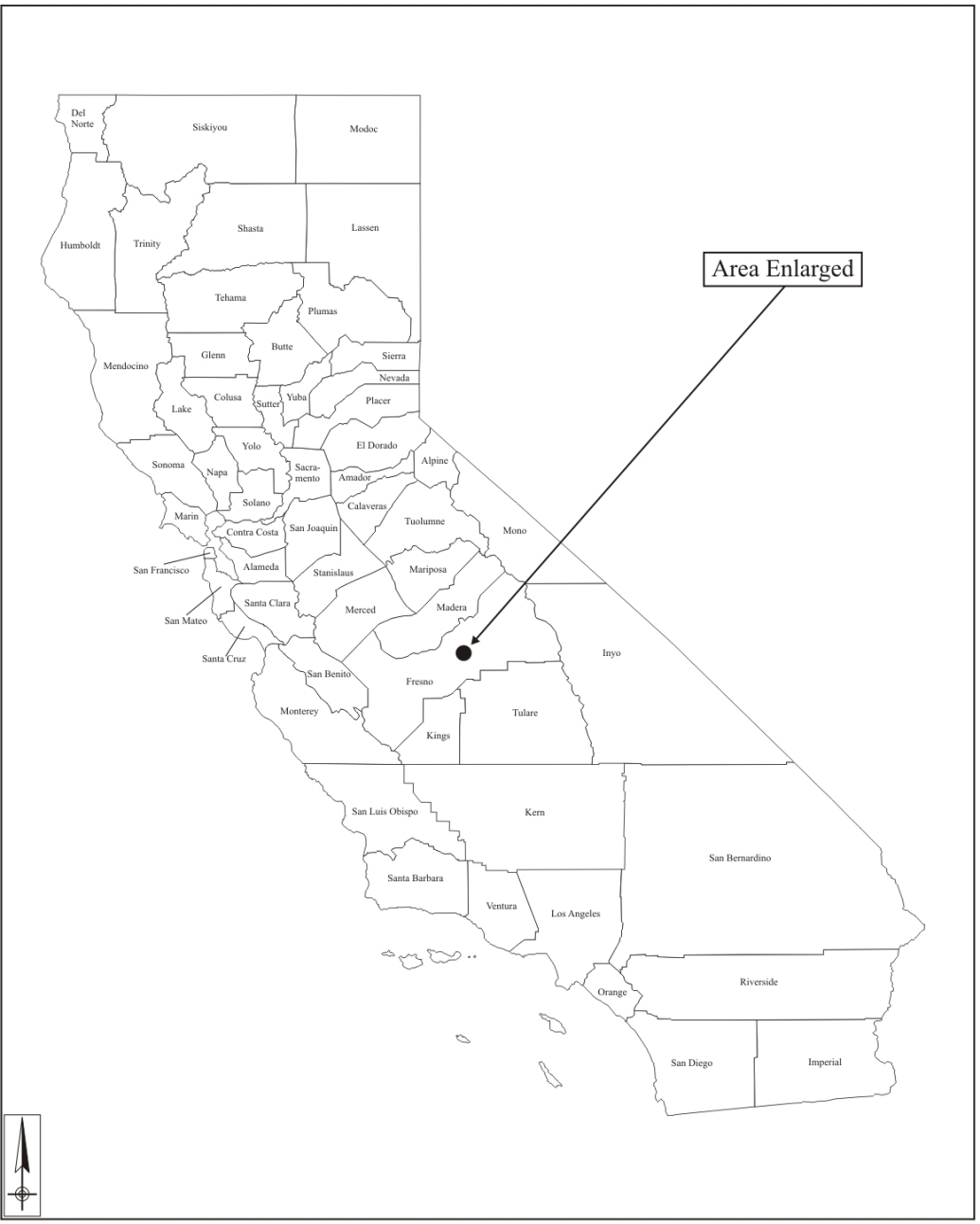
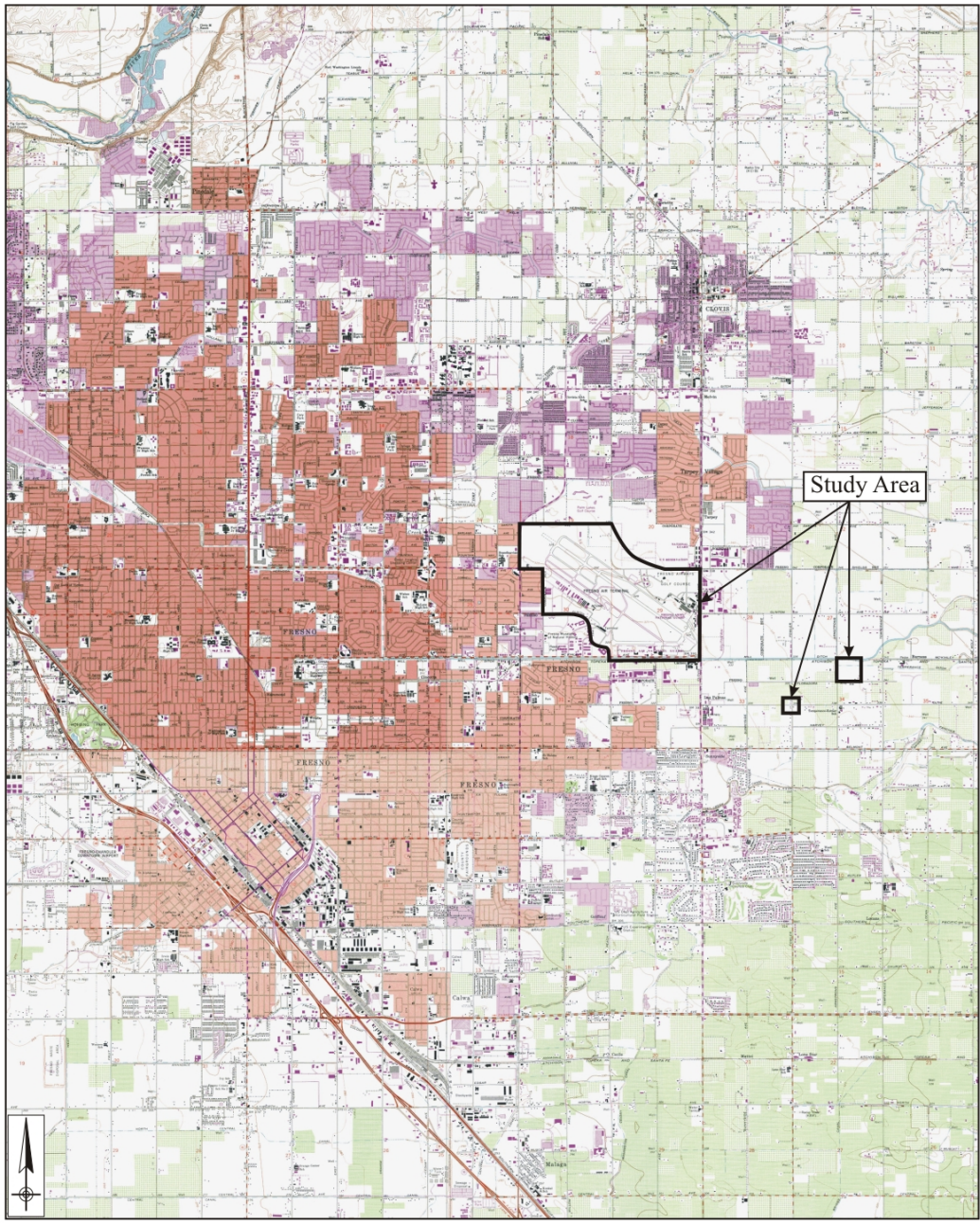
PREPARERS' QUALIFICATIONS

JRP principal Rand Herbert (MAT in History University of California Davis) was the project manager and provided general direction for the preparation of this report. He participated in research, field work, report preparation and edited the report and forms. Mr. Herbert has more than twenty-five years experience working as a consulting historian on a wide variety of historical research and cultural resource management projects as a researcher, author, and project manager. Based on his level of education and experience, Mr. Herbert qualifies as historian/architectural historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

JRP Research Assistant Steven J. Melvin conducted research and contributed substantially to the writing and production of this report and forms. Mr. Melvin has a B.A. in History from the University of Minnesota and a Certificate in Public History from California State University, Chico. He is currently pursuing an M.A. in Public History from California State University, Sacramento.

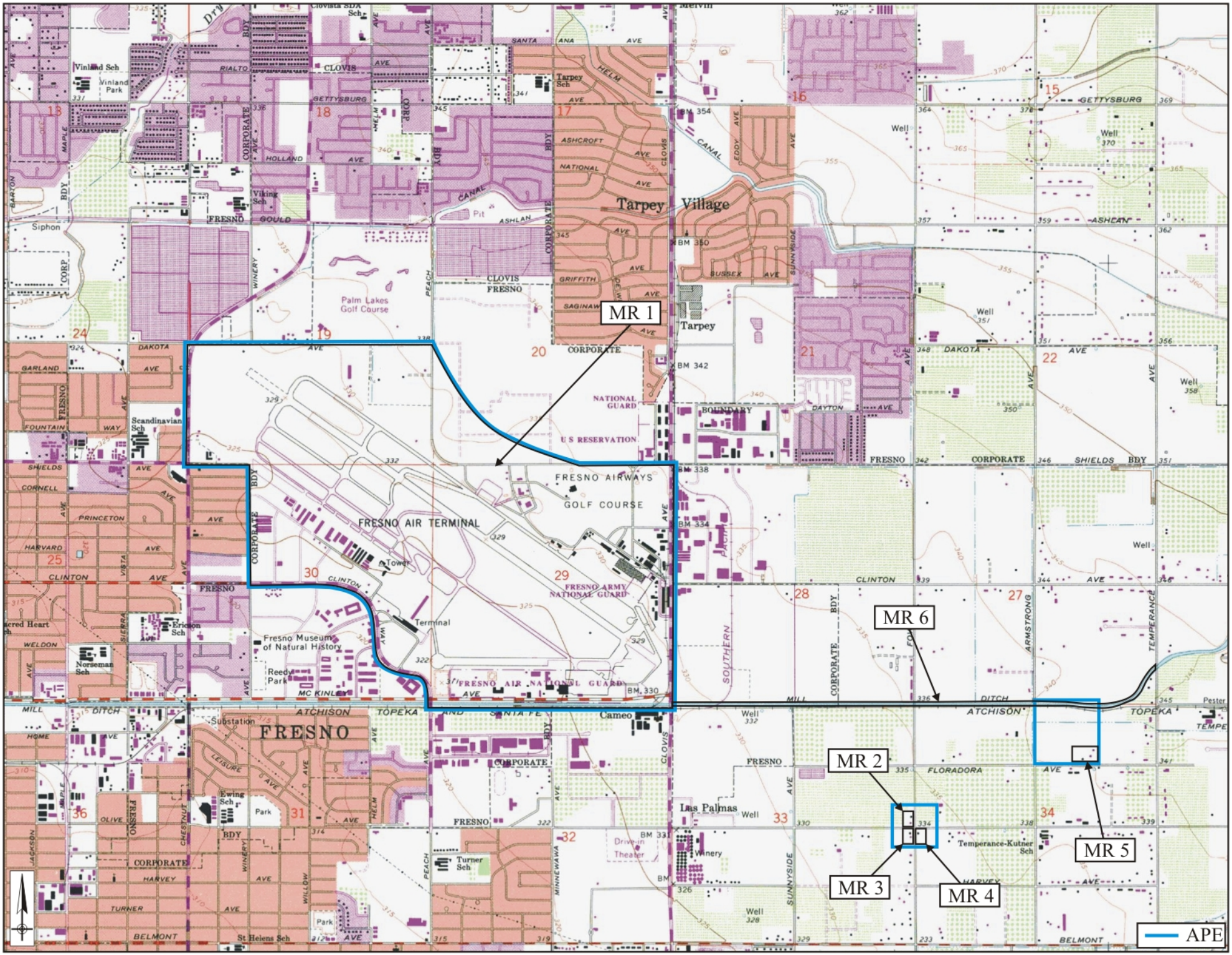


Project Vicinity



Project Location

Figure 1. Project Vicinity-Project Location Map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Tarpey Village
Tarpey
Palm Lakes Golf Course
CLOVIS
FRESNO
Fresno Museum of Natural History
Reedy Park
Las Palmas
Cameo
Substation
Drive-in Theater
Winery
Temperance-Kutner Sch
Turner Sch
Ewing Sch
St Helens Sch
Scandinavian Sch
Norseman Sch
Erisman Sch
Viking Sch
Vinland Sch
Vinland Park
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Terminal
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SOUTHERN
CANAL
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MILL
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SHIELDS
DAKOTA
GETTYSBURG
ASHCAN
FLORADORA
BELMONT
MC KINLEY
HOLLAND
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CORPORATE
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WINERY
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HELM
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TEMPERANCE
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SUNNYSIDE
EDDY
DAYTON
BOUNDARY
SUSSEX
ASHCROFT
NATIONAL
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SAGINAW
GARLAND
FOUNTAIN
WAY
CORNELL
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HARVARD
VISTA
SIERRA
WELDON
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OLIVE
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Figure 2.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date _____

 *Resource Name or # Map Reference 1

P1. Other Identifier: Fresno / Yosemite International Airport

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Fresno

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5′ Quad** Clovis **Date** 1964 (photorevised 1981)**T**___; **R** ___; __ ¼ **of Sec** ___; _____ **B.M.**

c. Address 5175 E. Clinton Way City Fresno Zip 93727

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Fresno/Yosemite International Airport (FAT) is located on 2,300 acres, five miles northeast of downtown Fresno. Residential and commercial development surrounds the airport on the north, west, and south; land to the east and southeast is comparatively rural. The property consists of an airline terminal complex, airport support facilities, general aviation areas, two runways, and land leased for commercial, industrial, and recreational uses. The California Air National Guard, California Army National Guard, and US Marine Corps Reserve also lease property from the airport. The northeast corner of the property is a public golf course. Eight airlines serve the FAT with 49 daily departures. This form evaluates the six buildings (Figure 1) on the FAT property that are more than 50 years old. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Industrial Building (HP8); Ancillary Building (HP4); Multiple Family Residence (HP3); Other (HP39)

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. **Description of Photo**: (View, date, accession #) Photograph 1. Aerial view of Fresno / Yosemite International Airport. 2005

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
Original costruction 1942, major additions, 1954-1956, 1962, 1968, 1978, 1993, 1997, 2002, *Fresno County in the 20th century: from 1900 to the 1980s*; aerial photographs; *Los Angeles Times*; FAT website.

***P7. Owner and Address:**
City of Fresno

***P8. Recorded by:** (Name, affiliation, address)
Rand Herbert/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 8/8/06

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Properties Inventory and Evaluation Report for the Fresno / Yosemite International Airport, September 2006.

***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (list) _____

***NRHP Status Code** 6Z

***Resource Name or #** Map Reference 1

B1. Historic Name: Fresno Army Air Base, Fresno Air Field, Hammer Field, Fresno Air Terminal

B2. Common Name: Fresno/Yosemite International Airport

B3. Original Use: US Army Air Corps airfield B4. Present Use: commercial airport

***B5. Architectural Style:** military, utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations) Fresno Army Air Base/Hammer Field buildings: ca. 1942; Hangar: ca. 1955.

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:** _____

B9. Architect: U.S. Army b. Builder: George A. Fuller Company, contractor

***B10. Significance: Theme** n/a **Area** n/a

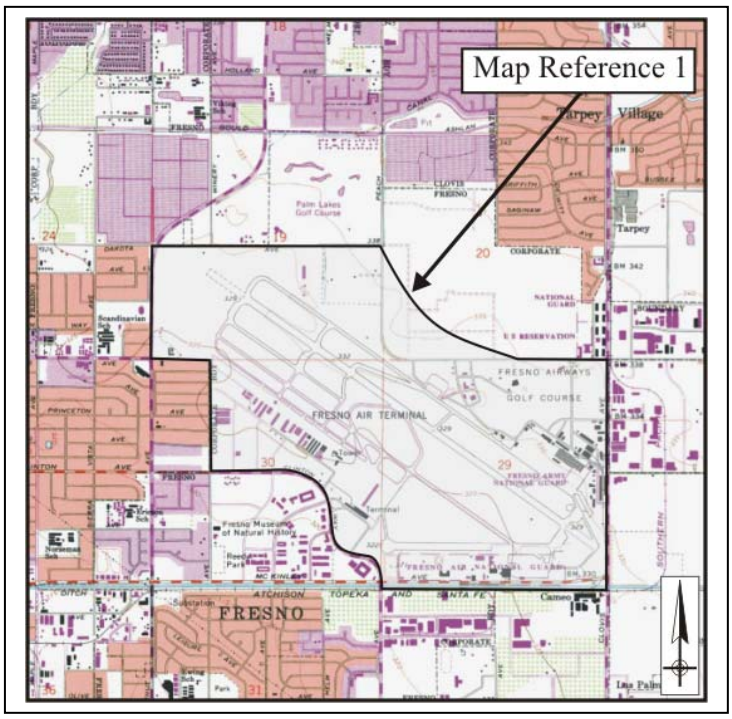
Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The six buildings evaluated on this form that are part of the Fresno/Yosemite International Airport (FAT) do not appear to meet the criteria for listing in the National Register of Historic Places, nor do they appear to be historical resources for the purposes of the California Environmental Quality Act (CEQA). Five of the buildings were part of the Fresno Army Air Base/Hammer Field and built around 1942; the other property dates to around 1955. FAT is located between McKinley, Dakota, Clovis, and Chestnut avenues in Fresno, California. The evaluated buildings are all in the northeast corner of the property (Figure 1). None of the buildings at FAT are associated with events that have made a significant contribution to the broad patterns of our history (Criterion A / Criterion 1), or with the lives of persons significant in our past (Criterion B / Criterion 2). Nor do they embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, these buildings are otherwise documented and do not appear to be a principal source of important information in this regard. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) ____ _____

***B12. References:** Charles Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s*; *Los Angeles Times*; Janet R. Daly Bednarek, *America's Airports: Airfield Development, 1918-1947*; Carl Solberg, *Conquest of the Skies*; Maurer Maurer, *Air Force Combat Units of World War II.* **See Footnotes.**



B13. Remarks:

***B14. Evaluator:** Steven J. Melvin/Rand Herbert

***Date of Evaluation:** August 2006

(This space reserved for official comments.)

P3a. Description (continued):

Building 76-Office

Building 76 is a former Army Air Corps building constructed as part of Hammer Field around 1942 and currently used as an office (Photographs 2 and 3). It is a single story building with a long, rectangular plan and faces northeast. Mapping from 1945 and 1946 does not indicate a building with the footprint of Building 76, suggesting that two buildings from Hammer Field were joined at some time to create Building 76. The building sits on concrete piers, has wood framing and a medium pitch, side gable roof with overhanging eaves and exposed rafters. On the south corner of the building is a small front gable element. Along the ridge of the roof are several monitor vents; and on the roof's southwest slope are modern HVAC systems mounted on platforms. At the midway point of the roof is a stepped parapet that divides the roof in two parts. Stucco covers the original wood siding and composition shingles top the roof. On the northwest end of the front façade is a shed roof supported by 4x4 wood posts that cover an entrance.

On both the front and rear of the building are several entrances. Those on the front are accessed by modern concrete steps with concrete handicapped accessibility ramps. Some have solid concrete balustrades and others have metal pipe railings. All entrances have modern doors of varying styles. The rear façade has several more entrances with modern concrete steps and metal pipe railings. The entrances have modern metal doors. One entrance has a concrete handicapped accessibility ramp. Fenestration consists of 6/6 double hung windows placed singly and in pairs.

Building 97-Office

Building 97 is a former Army Air Corps building constructed as part of Hammer Field around 1942 of similar design and materials as Building 76 (Photograph 4). Mapping from 1945 and 1946 and other sources indicate Building 76 was moved to its current location. The building is in a restricted area of the US Marine Corps Reserve section of the airport, which limited access. It is a single story office building with a rectangular plan and faces southeast. It sits on concrete piers and has a wood frame and medium slope side gable roof with overhanging eaves and exposed rafters ends. Along the ridge of the roof are monitor vents; and on the roof's northwest slope is a modern HVAC system on a platform. There appears to be a shed roof along a segment of the southeast façade. Stucco covers the original wood siding and composition shingles top the roof. Two entrances are on the northwest façade, both accessed by concrete steps and modern doors. Fenestration consists of 6/6 double hung windows.

Building 66-Warehouse

Building 66 is an approximately 19,000 square foot former Army Air Corps warehouse constructed as part of Hammer Field around 1942 (Photograph 5 and 6). It is a one and a half story building with a rectangular plan and faces southwest. It has a concrete foundation, wood framing and a medium slope, parallel gable roof with narrow eaves. Stucco covers the original wood siding and composition shingles top the roof. Along each ridgeline are three, small vented monitors and on each slope are modern HVAC systems. Midway along the northeast façade is a small shed roof element with a chain link fence covering an entrance. On the southwest façade are two top hung sliding doors constructed of plywood sheets. Two similar doors once existed on the southeast side, but have been replaced by modern metal roll-up doors. A loading dock accessed by a below grade ramp with a metal pipe and chain fence leads to one of the doors. The northeast side of the building also has two top hung sliding doors. One is constructed of diagonal wood planks, while the other appears to be of modern wood construction with an integral metal personnel door. An additional metal personnel door is on the northeast side of the building as well as the northwest and southeast sides. Fenestration consists of modern fixed pane and one six pane fixed window on the northeast side.

Figure 1. Aerial view of FAT showing evaluated buildings.

Building 85-Bathhouse/Associated Buildings

Building 85 is a single story bathhouse constructed as part of Hammer Field as a bathhouse around 1942 (Photographs 7 and 8). It has a roughly rectangular plan and faces onto a swimming pool to the north. The building's concrete foundation supports board form concrete walls and a flat roof with wide overhanging eaves on the north side. The north side of the

building has concrete walls with deep horizontal grooves. Concrete steps leading to the roof on both the east and west ends have concrete support posts and metal pipe railings. Vertical groove wood panels and a wood door enclose the area beneath the west end stairs. Fenestration consists of four pane windows covered by heavy mesh screens. Three entrances project out from the front façade, one in the middle and one on each end. The entrance in the middle appears to be the main entrance to

the building. It has concrete ramps with metal pipe railings on each side leading to two metal doors, one for men and one for women. The entrances on the east and west ends have a single metal door. A small, flat roof element with three boarded up personnel entrances and two boarded up windows adjoins the building on the south side.

To the west of the bathhouse and separated only by a narrow walkway is a second building also referred to as Building 85. It is a single story building with a square plan constructed by the Army Air Corps probably as a decontamination building about the same time as the bathhouse. Board form concrete walls clad in stucco sit on a concrete foundation and support a flat roof. Fenestration consists of metal sash casement windows and a modern metal sash sliding window. On the east side there appears to be a small opening with a wood surround for money transactions. A personnel entrance with a security gate is on the north façade side of the building.

Two other small ancillary buildings are beside the pool. One is near the north end of the pool and is a roughly six by six concrete block building built on a concrete foundation with a side gable roof clad in composition shingles. It has a metal door on the south end and vents built into the walls on the gable sides. A second building is east of the bathhouse. It is roughly six by six and has a concrete foundation, wood frame, and a low pitched, front gable roof with exposed rafters. Horizontal wood siding covers and walls and rolled composition tops the roof. It has a wood door on the northwest side.

Building 86-Pool

Building 86 is a former Army Air Corps swimming pool constructed as part of Hammer Field around 1942 (Photograph 8). It is 166 feet long by 55 feet wide and surrounded by a concrete apron. Two diving boards are on the east and west sides of the deep end.

Building 75-Hangar

Building 75 is an approximately 89,725 square foot airplane hangar constructed about 1955 (Photographs 9, 10, and 11). It is an approximately four story tall, arched steel truss building with a rectangular plan. The hangar sits on a concrete foundation and is clad in corrugated metal sheets. The length of the building is aligned along a northwest/southeast axis and has pocket/leaf doors that open on both ends. On the northwest side of the building is an attached shed roof that protects the twelve sliding doors that cover the nearly three story, full width opening. The doors are set on tracks on the top and bottom and are enclosed, six each in compartments, on both ends of the tracks. Personnel doors are at each end of this side of the building. On the southwest end of the building, the doors are approximately twice as wide and contain sets of metal sash industrial windows. These sets of doors are visible when open, as is the steel framing for the doorway. Two metal personnel doors are set in the sliding doors on the southeast facade. Nine pane metal sash awning casement windows are on the northeast and southwest sides. The top six panes pivot open on a central axis.

B10. Significance (continued):

Historic Context

Early Aviation

Aviation began in Fresno County around 1920. Many of the flights at this time were by exhibition flyers, the military, and the post office airmail deliveries.[1] By 1920, Fresno was a stop on the airmail route of the post office between Los Angeles

[1] Charles Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s* (Fresno, California: Panorama Books, 1986), 261, 273

and San Francisco.[2] As aviation matured, so did airports. The first landing sites were flat, open fields with minimal, if any, associated facilities. Gradually cities in Fresno County and elsewhere began to build more sophisticated airports, often times encouraged by the post office or military with the promise of an airmail station or air base. Research did not reveal what the facilities were like at Fresno in this early period, but planning did begin for a "municipal airport" in August of 1925. Proposals for the new 300-acre airfield called for military, commercial, and air mail facilities on a site seven and a half miles north of the city.[3]

After construction of this new municipal airport, air traffic into Fresno continued to increase. It remained a station on the Seattle to Los Angeles air mail route and received its first commercial passenger flights. In 1925, congress passed the Air Mail Act transferring mail carrying from the post office to private companies, an action that gave birth to the first commercial airlines. Airlines such as Varney Air Lines (later United Airlines), Western Air Express (later Trans World Airlines), and Robertson Aircraft Corporation (later American Airlines), which began as airmail carriers, soon started carrying other cargo and passengers. A Maddux Airlines twelve passenger, tri-motor monoplane began a service between San Francisco and San Diego, with a stop in Fresno, in 1928. The route also made stops in Oakland, San Jose, Bakersfield, and Los Angeles. Beacon Airways and California National Airways also served the Fresno airport at this time.[4]

The importance of aviation to Fresno became apparent by the late 1920s. Fresno voters rejected a bond issue to fund improvements to the municipal airport in November 1928, causing the City Commission to terminate the city's lease of the property. This seeming lack of support for aviation actually was an endorsement for the future, as voters rejected the existing airport because of its great distance (seven miles) from the city. Contrary to airport planning today, which requires their placement far from urban development, planning in the early twentieth century called for airports to be close to the communities they served. Citizens and civic leaders understood that to keep pace with advances in aviation and its rival cities, Fresno needed an airport close to the city center.[5]

In January 1929, former State Senator W. F. Chandler donated 100 acres of land one and a half miles west of downtown to the City of Fresno for a municipal airport. Fresno built an up-to-date facility named Chandler Field at the site and opened it the same year.[6] Chandler Field continued to provide Fresno with airmail and commercial passenger service, and hosted flying exhibitions.[7] The airfield also experienced increasing use as a stopover field by military aircraft enroute to Army Air Corps bases such as Mather Field near Sacramento and March Field near Riverside, both of which had existed since 1918.[8]

The Army Air Corps had gradually grown since 1920 when the Congress created it predecessor, the Air Service, as a combatant arm of the US Army in 1920. Early duties of the Air Service were largely observational. In 1926, the Air Service changed its name to the Air Corps and began an expansion that lasted until 1933. Over that period, the Air Corps shifted away from observational aviation and added more combat squadrons. The Air Corps became interested in Chandler

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[2] "Air Mail Boxes," *Los Angeles Times,* 1 January 1921, IV18.
[3] "Fresno Planning Airport," *Los Angeles Times,* 23 August 1925, G9; "Fresno to Drop Lease on Airport," *Los Angeles Times,* 9 November 1928, 15; Janet R. Daly Bednarek, *America's Airports: Airfield Development, 1918-1947*, 14-18.
[4] "To Extend Air Mail Service to the North," *Los Angeles Times,* 6 June 1925, A13; Bednarek, *America's Airports*, 14-18, 41, 68, 167-172; Carl Solberg, *Conquest of the Skies* (Boston: Little, Brown and Company, 1979), 31, 34, 35; "New Plane Service Begun," *Los Angeles Times,* 15 April 1928, 2; "Army Plane Smashes Up At Fresno," *Los Angeles Times,* 26 April 1930, A8; "Cape Horn Hop Set for Today," *Los Angeles Times,* 17 April 1928, 2; "Fresno Fliers Here," *Los Angeles Times,* 17 June 1928, G9.
[5] "Fresno to Drop Lease on Airport," *Los Angeles Times,* 9 November 1928, 15; "Appointment Raises a Row," *Los Angeles Times,* 10 October 1929, 12; George R. Goethals, "The Present Status of Airport Engineering," *The Military Engineer* 23 no. 129 (1931): 231.
[6] "Fresno Voters to Accept Gift of Civic Airport," *Los Angeles Times,* 18 January1929, 10; "Appointment Raises a Row," 12.
[7] "Fresno May Not Drop Tax On Gasoline," *Los Angeles Times,* 18 June 1931, 11; "Fresno Plans Aerial Circus," *Los Angeles Times,* 2 February 1934, 5; "Plane Starting New Mail Route Lands in Fresno," *Los Angeles Times,* 6 September 1937, 9.
[8] "Army Plane Smashes Up at Fresno," *Los Angeles Times,* 26 April 1930, A8; "Bomber Collides with Wire Fence," *Los Angeles Times,* 7 May 1937, 18; Warren A. Beck and Ynez D. Haase, *Historical Atlas of California* (Norman, Oklahoma: University of Oklahoma Press, 1974), 87.

Field during this expansion and city officials entered into discussions with military officials in 1933 to make the airport part of the army's growing network of airfields.[9]

This plan did not come to fruition, but the Army remained interested in citing an airfield in Fresno. The Air Corps began dramatic expansion in preparation for World War II after President Roosevelt's call for increased air power in 1939. Congress responded and approved $40 million in appropriations for improvements to existing airports and construction of new airports deemed important to national defense, nearly all of which were in Texas, Florida, or California. Because of its strategic position on the West Coast, fears of Japanese attack, and the state's naturally good weather, California became home to 44 major army air bases during World War II. In 1939, it had only three: McClellan Air Base, March Air Base, and Hamilton Air Base. The army expanded these existing bases and built many other smaller fields throughout the state. Negotiations began between Fresno city officials and the War Department concerning an army air base in Fresno in 1939.[10]

Fresno Army Air Base/Hammer Field

In August 1940, War Department officers arrived in Fresno to select a site for an air base in the San Joaquin Valley. The military announced in October 1940 that it had decided on Chandler Field for an Army Air Corps bomber base, contingent upon the city purchasing land adjacent to the airport and improve existing facilities. Fresno agreed to these conditions and began fulfill the Army's demands. In January of 1941, however, as construction was about to begin, General J. E. Fickle announced that the army had abandoned its plans for Chandler Field, citing inadequate space and proximity to development as the reasons. The army chose instead a site ten miles southwest of Fresno near Raisin City. This site did not suit the military either and General Fickle suggested that the City of Fresno buy 500 acres six miles northeast of Fresno bounded by Clovis, Shields, Winery, and McKinley avenues. The city acceded to the Army's request and ultimately purchased 800 acres at the location. The city and the federal government then reached an agreement for tenancy whereby the federal government would lease the land for one dollar per year for an unspecified duration. Within the lease was a provision that if the army abandoned the base, any improvements would revert to the city.[11]

Fresno Army Air Base officially opened on April 3, 1941 and contractors George A. Fuller Company of Los Angeles began construction. In the same month, the army let an $872,855 contract for "temporary" buildings at the base. By August 1941, the base had 2,400 troops and 135 buildings; by November workers finished construction of a 7,200 foot runway. The Army renamed the air base to Hammer Field in January 1941. It was designated the 4th Airforce Replacement Depot under command of the 4th Air Force in San Francisco and was a training base for B-18, B-17, and B-24 bombers. Aircraft from Hammer Field also flew submarine reconnaissance missions along the West Coast. On the air base grounds was a large, 932-bed hospital that served other bases in the state and was an Army Air Force nurses training center. In March 1944, the 319th Wing Headquarters arrived at Hammer Field and began night fighter training with P-61 Black Widow aircraft. During the war, the government purchased an additional 800 acres west and north of the original property to expand the facility.[12]

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[9] "Airport at Fresno May Become Army Field Unit," *Los Angeles Times,* 4 December 1933, 6; Maurer Maurer, *Air Force Combat Units of World War II* (Washington, D.C.: Office of Air Force History, 1983), 4-7.

[10] Maurer, 7; Bednarek, *America's Airports,* 151, 152, 155; Clough, et al., *Fresno County in the 20th Century*, 60; "California Historic Military Buildings and Structures Inventory, Volume 3," JRP Historical Consulting Services, March 2000, 7-9, 7-10. Mather Field closed in 1923 and reopened in 1941.

[11] "Fresno Awarded Bomber Base," *Los Angeles Times,* 17 October 1940, 8; "Air Base Site Shift Approved," *Los Angeles Times,* 26 January 1941, 16; Charles Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s* (Fresno, California: Panorama Books, 1986), 60, 275; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, 3; Warren A. Beck and Ynez D. Haase, *Historical Atlas of California* (Norman, Oklahoma: University of Oklahoma Press, 1974), 87.

[12] Charles Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s* (Fresno, California: Panorama Books, 1986), 276; "Army-Navy Orders Drop," *Los Angeles Times,* 8 April 1941, 11; "Fresno Air Terminal, Site Operations History: Final Report," TechLaw, Inc., 1992, 4, 8.

Fresno Air Terminal/Fresno Yosemite International Airport

After the war, the War Department deactivated Hammer Field, completing this process in April 1946. The City of Fresno assumed control of the airport section of Hammer Field in December 1946 and renamed it Fresno Air Terminal (FAT). The first commercial flight flew out of FAT in October 1947. Two years later, the War Assets Administration canceled the Hammer Field lease options, and quitclaimed land west of the runways to the City of Fresno and land north of the runways to Fresno State College for use as an agricultural school. The land under lease, which reverted to the city, contained 146 buildings, a 7,200-foot runway, utilities, and all other items on the property.[13]

Of the many Army Air Bases constructed in the World War II era, most were deactivated after the war and became property of the local municipalities. This occurred at an important moment in American aviation history. The war caused the rapid advancement of aviation technology, strengthened the aircraft industry, made long distance flying routine, trained thousands of pilots, and exposed many young military personnel to flying. These factors, coupled with the introduction of coach airfare, and a general increase in leisure time and expendable income, caused dramatic changes in commercial air travel. By 1955, the number air travelers exceeded the number of rail travelers in the US for the first time. Planes became bigger and faster, and Boeing introduced the first commercial passenger jet, the Boeing 707, in 1958.[14]

The war also set the precedent of federal funding for municipal commercial airports. Prior to appropriations made by Congress in 1940 for improvements to municipal airports for use by the military, cities funded their own airports through taxes and bonds. In 1946, Congress passed the Federal Aviation Act, which provided money to local governments to build new airports and improve existing facilities. This financial assistance came as airports struggled to keep pace with the requirements of bigger and faster aircraft, more air traffic, and increased passenger counts. Jet powered aircraft raised an additional consideration for airport planners: noise. After the advents of jets, the impact of an airport on the neighboring community became a primary concern, and local governments planned new airport construction far from residential development.[15]

Fresno's plan after gaining control of the airfield was to convert it into a self-supporting civil airport. With the advancements in aviation since 1940, Hammer Field's location away from development made it an ideal site and planners envisioned it as Fresno's primary airport, and Chandler Field as a secondary airport for general aviation. FAT began acquiring additional adjacent land to provide for clear approach zones, longer runways, and future expansion. The city used some of the former buildings on the site as low-income housing, creating a community called Hammer Field Village. Other buildings went to Fresno State College, and some were sold to private individuals. To help attain financial self-sufficiency, FAT leased buildings to companies such as North American Aviation, Universal Jet Industries, and Dow Chemical Company. In 1954, the California Air National Guard (CANG) also started to lease property at FAT, installing a $1.1 million complex in the southeast corner. CANG also extended the runway by 1000 feet in 1956, which caused the rerouting of Shields Avenue. By 1959, there were 38 tenants at FAT.[16]

From 1946 to 1959, the city spent $3.7 million on improvements at FAT, $500,000 of which came from the Federal Airport Aid Program. By the end of the 1950s, FAT property consisted of 1,475 acres. Improvements did not stop, however, and FAT continued to have its sights set on the future. In 1959, the Airport Master Development Plan provided $4 million

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[13] "Fresno Air Terminal, Site Operations History,", 4, 5, 67, 68; Clough, et al., *Fresno County in the 20th Century: from 1900 to the 1980s* , 63, 276, 277.
[14] Solberg, *Conquest of the Skies*, 251-252, 271-273, 345, 376, 361, 346, 396.
[15] Bednarek, *America's Airports*, 170; Merrill De Longe, "Effects of Jet Aircraft on Air Base Planning," *The Military Engineer* 326 (1956): 420-422.
[16] Clough, et al., *Fresno County in the 20th Century*, 277; "Guard Air Base Work Scheduled," *Los Angeles Times,* 8 February 1954, A11; "Fresno Calls $500,000 Air Terminal Bids," *Los Angeles Times,* 6 June 1956, 39; "Fresno Air Terminal, Site Operations History," 5, 67-69.

dollars in funds, $2 million coming from the federal government for improvement to FAT and Chandler Municipal Airport. Work at FAT under this plan consisted of a new control tower, passenger terminal, fire station, maintenance building, and general aviation facility, all completed by 1962. FAT also opened land for an industrial tract by evicting the low-income tenants of Hammer Field Village and selling the 216 dwellings. In 1968, the airport reconstructed runway the main runway (29R) and the airfield taxiways.[17]

Upgrading and new construction was carried on at FAT up to the present. Remodeling the terminal and concourse occurred in 1978, 1993, and 1997, and the airport constructed a new, two level terminals in 2002. FAT changed its name to Fresno/Yosemite International Airport in 1995 in an effort to attract more air travel business, however, FAT is still the airport's operating code. Currently the airport has two runways: the main runway, 29R-11L, which is 9,222 feet long and 150 feet wide; and runway 29L-11R, which is 7,206 feet long and 100 feet wide. It is served by eight airlines with 49 daily departures and over one million passengers pass through its gates each year. The property is also home to the California Air National Guard, California Army National Guard, California Department of Forestry, US Forest Service, US Marine Corps Reserve, general aviation facilities, airport administration buildings, and a municipal golf course.[18]

[17] "Land Use and the Fresno Air Terminal," Fresno County and Fresno City Planning Commission, 1959, 6; "Fresno May Become Major Air Terminal," *Los Angeles Times,* 15 February 1959, A10; Clough, et al., *Fresno County in the 20th Century*, 277; "Southland Views," *Los Angeles Times,* 6 April 1962, 35.
[18] "City of Fresno—Airports," available at http://www.fresno.gov/flyfresno/airporthistory.pdf, accessed August 2006.

Evaluation

Five of the six buildings on FAT in the APE were built as part of the Fresno Army Air Base/Hammer Field and are associated with military expansion prior to and during the first two years of World War II, and specifically with the development of Army air bases during this time. As such, these five buildings are associated with an important event, World War II, but Fresno Army Air Base/Hammer Field is not significant within the context of the war. Hammer Field was one of many bases constructed at the beginning of World War II throughout California and the nation, but it does not stand out. As a training and reconnaissance base, it performed routine duties during the war. It did not play a vital role in the war such as supply depot, maintenance base, or defensive base. Nor were any of the buildings associated with Hammer Field individually important to the war effort. The Hammer Field era buildings evaluated on this form were all associated with routine functions such as housing, warehousing, and recreation. After Hammer Field deactivated in 1946, these five buildings played a minor role in the operation of FAT. Therefore, Hammer Field, and buildings associated with it, are not historically significant for their association with World War II, or their association with FAT (Criterion A / Criterion 1). Nor were any of the buildings associated with Hammer Field individually important to the war effort and, therefore, Hammer Field, and buildings associated with it, are not historically significant for their association with World War II (Criterion A / Criterion 1). Neither Fresno Army Air Base/Hammer Field nor the five buildings evaluated on this form have important historical associations with persons who have made significant contributions to local, state, or national history (Criterion B / Criterion 2). After the war, all of the buildings associated with Hammer Field except the ones evaluated on this form were sold or destroyed and the function of the airfield changed from military to civilian. Therefore, FAT lacks integrity to the Hammer Field era in setting, materials, design, feeling, workmanship, and association.

As the US prepared for World War II, it hurriedly built air bases such as Fresno Army Air Base/Hammer Field. The military could build hundreds of buildings in a matter of months. What made this possible was the use of standard plans and buildings constructed to "temporary" standards. As such, most of the buildings constructed during this period are not historically significant for their architecture. Buildings 76 and 97 are similar in style and materials. Both were constructed from standard army plans and do not have distinctive architectural characteristics. As such, these two buildings do not embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). Furthermore, both have compromised integrity of location, setting, materials, workmanship, feeling and association. Building 66, the Warehouse, is of utilitarian design does not embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In addiction to lacking significance, Building 66 has compromised integrity of materials, workmanship, setting, feeling, and association. Building 76, 97, and 66 are heavily altered surviving examples of the large number of similar standard buildings constructed at the base.

Buildings 85 and 86, the Bathhouse and Pool, are of a common design and are not distinctive architecturally. Building 85 has retained its function as a bathhouse since its construction about 1942. It does appear, however, that the original entrance on the south side of the building is boarded up. The pool is a simple rectangle and lacks significant design characteristics. Although both retain some historic integrity from when they were constructed, neither the Bathhouse nor Pool embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). Although Buildings 85 and 86 retain integrity of location, design, materials, workmanship, feeling, and association, they lack historical significance.

The sixth building on FAT in the APE is Building 75, a hangar, constructed about 1955 after the closure of Hammer Field. This building is associated with the Fresno Air Terminal and development of industry on airport property. The tenants, North American Aviation (NAA), Grand Central Aviation, and Art Metal Incorporated, were among the largest industrial employers at the airport. NAA employed as many as 3,200 people during the early 1950s. The businesses that occupied the hangar, however, did not reach a level of significance within the context of industrial development at the airport, or in Fresno City to be considered historically important for these associations (Criterion A / Criterion 1). Building 75 does not have important historical associations with persons who have made significant contributions to local, state, or national history (Criterion B / Criterion 2).

Building 75 is also not significant architecturally. Although constructed after the war, this hangar is of the same design as military hangars constructed during World War II. The trussed arch framing covered in corrugated steel and sliding doors housed in pockets were common characteristics of Army Air Force hangars. These buildings answered the military's needs for hangars that were easy to erect and transport. Very few of the World War II era military hangars have been found eligible for the NRHP under Criterion C because they were common and built from a standard design. As a building of the same type, Building 75 presents no innovations in terms of engineering, design, or architecture.[19] Therefore, it is lacking distinction of type, period, design, and method of construction (Criterion C / Criterion 3). Although Building 75 retains integrity of location, setting, design, materials, workmanship, feeling, and association, it lacks historical significance.

[19] Walter G. Hiner, "Combat Airplane Hangars," *The Military Engineer* 37, no.235 (1945): 185-188; "California Historic Military Buildings and Structures Inventory, Volume 3," JRP Historical Consulting Services, March 2000, 7-9, 7-10.

Photographs (cont):

Photograph 2. Building 76, camera facing southeast. 8/8/06.

Photograph 3. Building 76, camera facing southwest. 8/8/06.

Photographs (cont):

Photograph 4. Building 97, camera facing northwest. 8/8/06.

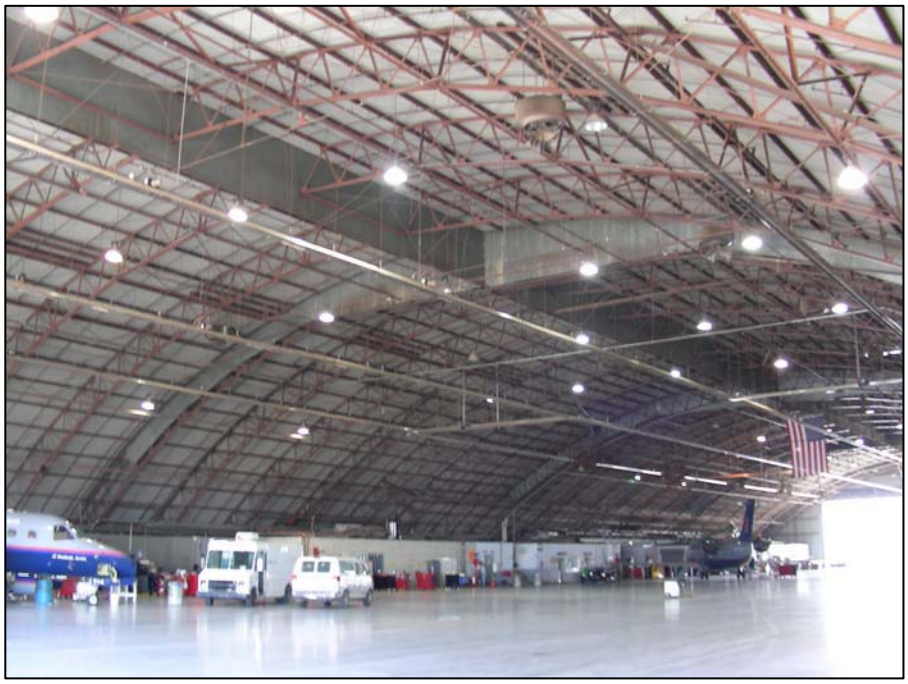
Photograph 5. Building 66, camera facing west. 8/8/06.

Photograph 6. Building 66, camera facing northwest. 8/8/06.

Photograph 7. Building 85, camera facing west. 8/8/06.

Photograph 8. Building 85 and Building 86 (Pool), camera facing south. 8/8/06.

Photograph 9. Building 75, camera facing southeast. 8/8/06.



Photograph 10. Interior of Building 75, camera facing west. 8/8/06.

Photograph 11. Southeast façade Building 75, camera facing northwest. 8/8/06.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

 ***Resource Name or #** Map Reference 2

P1. Other Identifier: none

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Fresno
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5′ Quad** Clovis **Date** 1964 (photorevised 1981)**T**___; **R** ___; __ ¼ **of Sec** ___; _____ **B.M.**

c. Address 5993 E. Olive City Fresno Zip 93727

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
310-070-67S

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This property, built about 1935, is at the northwest corner of Fowler Avenue and Olive Avenue about seven miles northeast of downtown Fresno. It is set in a rural, agricultural area. On the property are a residence and a shed/garage. This residence is a single story, 1,342 square foot Minimal Traditional style house has an irregular plan and a south facing façade (Photograph 1). The walls are concrete ashlar masonry blocks set on a concrete foundation. Topping the building is a medium slope, cross gable roof with exposed rafters. Vertical siding is in the gable ends and composition shingles clad the roof. At the gable peaks are louvered vents. An integral shed roof on the front façade covers a half-width porch accessed by three concrete steps; doubled 4x4 posts support the porch roof. At the rear of the house is an enclosed gable roof entryway. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Single Family Residence (HP2); Ancillary Building (HP4)

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Residence, camera facing north. 8/8/06

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1935, aerial photographs.

***P7. Owner and Address:**
E. Gallo
Winery J
P.O. Box 1130
Modesto, CA 95353

***P8. Recorded by:** (Name, affiliation, address)
Rand Herbert/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 8/8/06

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Properties Inventory and Evaluation Report for the Fresno / Yosemite International Airport, September 2006.

***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

B1. Historic Name: none
B2. Common Name: none
B3. Original Use: farmstead B4. Present Use: residence, garage, storage
***B5. Architectural Style:** Minimal Traditional
***B6. Construction History:** (Construction date, alteration, and date of alterations) original construction ca. 1935

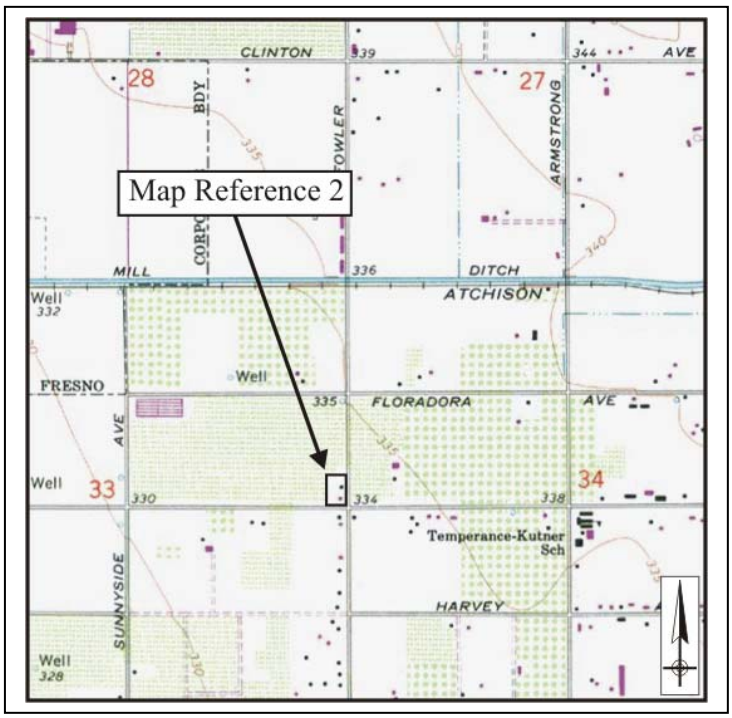
***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____
***B8. Related Features:** _____

B9. Architect: unknown b. Builder: unknown
***B10. Significance: Theme** n/a **Area** n/a
Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 5993 East Olive Avenue does not appear to meet the criteria for listing in the National Register of Historic Places, nor does it appear to be an historic resource for the purposes of the California Environmental Quality Act (CEQA). The buildings, built about 1935, are located on the northwest corner of Olive Avenue and Fowler Avenue in Fresno, California. They are not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A / Criterion 1), or with the lives of persons significant in our past (Criterion B / Criterion 2). Nor do they embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, these two buildings are otherwise documented and do not appear to be a principal source of important information in this regard. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) _____

***B12. References:** Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 17-38, 169-177. Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980); Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919); *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892); Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891). **See Footnotes.**



B13. Remarks:

***B14. Evaluator:** Steven J. Melvin/Rand Herbert

***Date of Evaluation:** August 2006

(This space reserved for official comments.)

P3a. Description (continued):

Fenestration consists of 1/1 double hung metal windows with screens. On the front façade is a nine light, fixed pane window with narrow 1/1 double hung windows on each side. An oriel window adorns the east side of the house (Photograph 2). The front door is obscured by a metal security gate. Additional personnel entrances are on the east and north sides. On the east side of the building is an exterior concrete chimney with stepped sides.

Also on the 1.19-acre lot northwest of the house is a single story shed/garage (Photograph 3). It has a concrete foundation, wood framing and a medium pitch, side gable roof with a center cross gable. Horizontal drop siding clad the walls and composition shingles top the roof. In the cross gable portion of the building are two top-hung sliding doors made of vertical wood lumber. On each side of the center gable are personnel entrances without doors. An unglazed window is in the south wall of the building. Defining the perimeter of the property on the two streets sides is an approximately three-foot high brick fence.

B10. Significance (continued):

Historic Context

Agricultural development of the area near this property began about 1870. Wheat was the first crop cultivated in the area, but after irrigation canals were built in the early 1870s, production shifted to grapes and orchard crops. A. Y. Easterby, Moses J. Church, and others founded the Fresno Canal and Irrigation Company (FCIC) and built the Fresno (or Church) Canal in 1872. Development of this irrigation system, with water from the Kings River, included acquisition of earlier existing canals and construction of additional canals such as the Mill Ditch in 1878, and branches over the following decades. Fresno City was established as a result of the Central Pacific Railroad survey and development of the town site. Church sold the FCIC to San Franciscan E. B. Perrin in 1887, who acquired the Laguna de Tache grant, and its riparian rights in 1891 expanding further the FCIC's system. Perrin lost control of the FCIC after the economic crisis of 1893. The FCIC later became part of the Fresno Irrigation District (FID) in 1921. Both the expansion of the FCIC in the 1890s and the FCIC's integration into FID encouraged greater development of the area. Some landowners in the area, such as Moses Church, sold their land for the development of agricultural colonies. Such colonies were a popular means of land settlement in Fresno County from the 1870s to the 1890s. The property at 5993 East Olive Avenue was first subdivided as part of the Nevada Colony.[1]

The Nevada Colony encompassed Sections 31, 32, and 33 T13S/R21E MDBM, just south and southwest of Fresno Yosemite International Airport (FAT). Moses Church owned this land and sold it in 1879 to S. A. Miller, editor of the Fresno Republican, who became the colony's chief promoter. Miller, a former Nevada miner, enticed many of his Nevada acquaintances to invest in the colony. As opposed to the nearby Temperance and Scandinavian colonies, land in the Nevada Colony sold in larger parcels. More common were tracts of 80 and 160 acres, the majority of it planted in vineyards. This colony received water from the Mill Ditch. Some of the early landowners of this property were William Williams and Company, Phil Scott, and H. Melcon. Scott purchased the property where 5993 East Olive Avenue now sits by 1902 and had planted 40 acres of vineyards. He owned the land through 1920. There was a building on this parcel as early as 1891. By 1937, there was a substantial farmstead on the parcel consisting of at least five buildings, including the house and shed

[1] Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 14-19; "Historic Architectural Survey Report Highway 180, Fowler Avenue to Cove Avenue," JRP Historical Consulting Services, 1992, 14-16; Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980), 68, 76, 99, 90, 91, 84, 102, 107, 1875 map; I. Teilman, W.H. Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties in Central California* (Fresno: Williams and Son, 1943), 17-18, 21-24.

evaluated on this form. Twenty years later, many of these early buildings no longer existed and the lot appears to only contain the current two buildings. The land surrounding the lot continued to be used for agriculture.[2]

The agricultural nature of the area near FAT persisted into the twentieth century with vineyards and fruit orchards the prevailing plantings. By 1907, a north/south running Southern Pacific Railroad line entered the area, passing between Sections 32 and 33 in the Nevada Colony. At about the same time, the Fresno Interurban Railroad laid east/west running tracks along the northern edge of the colony, parallel to the Mill Ditch.[3]

The pattern of agricultural land use began to change in 1941 with the construction of the Fresno Army Air Base/Hammer Field about one and a half miles west. During the following decades, the urban areas of Fresno and Clovis began encroaching into the area from the south, west, and north as these communities experienced population growth. The relocation of Fresno State College, today's California State University, Fresno, in the 1940s also brought development into the area. Despite these changes, the area in the immediate vicinity of 5993 East Olive remains largely agricultural.[4]

Evaluation

The property at 5993 East Olive Avenue is associated with pre-World War II agricultural development of this area. It was part of a farmstead consisting of as many as five buildings, of which only two remain. The parcel was first subdivided as agricultural land in the late 1870s and a previous residence was on the parcel prior to construction of the current house. The property at 5993 East Olive Avenue was one of many in the area that developed over time and, therefore, does not have important associations with events significant to local, state, or national history. Additionally, research did not reveal any occupants of the address who have made significant contributions to history (Criterion B / Criterion 2).

The residence of this property is a Minimal Traditional style house characterized by a front facing gable, medium pitch roof, and large chimney. The style now referred to as "Minimal Traditional" developed in the 1930s, and was a continuation of the small house design tradition that dates to the nineteenth century. Ornamented houses were economically infeasible for moderate homebuyers, and the emphasis of simplicity and unadorned surfaces of the Modern architectural movement began to modestly influence domestic architecture. Considered a "compromise style," the Minimal Traditional house reflected the form and shape of earlier housing styles, but without the decorative detailing. The residence at 5993 East Olive Avenue is a modest example of a Minimal Traditional house, but it is not architecturally distinctive (Criterion C / Criterion 3). Similarly, the utilitarian shed/garage is of a common type of construction and is not architecturally distinctive (Criterion C / Criterion 3). In addition to lacking historical significance, both buildings have diminished integrity. The house has concrete steps abutting the east wall suggesting the location of a previous doorway and diminishing its integrity of materials, workmanship, and design. The shed/garage has missing windows and doors diminishing its integrity of materials, workmanship, and design. Also, the demolition of outbuildings on the parcel diminish the integrity of association and feeling, and setting.

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[2] *Fresno Republican* 25 January 1879; Vandor, *History of Fresno County*, 263-264; *History of Fresno County, California with Illustrations*, 115; *Fresno Republican* 13 December 1879; 5 August 1882; *History of Fresno County, California with Illustrations*, 115; *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892), 64; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; W. Harvey Sr., *Atlas of Fresno County, California* (Fresno: W. Harvey Sr., 1907), 23; Progressive Map Service, *Progressive Atlas of Fresno County* (Fresno: Progressive Map Service, 1920), 29; Progressive Map Service, *Key Map of Fresno County and Portions of Kings and Tulare County Ownership Atlases* (Fresno: Progressive Map Service, 1935).

[3] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, E-4; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

[4] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History," E-4; Aerial Photographs 1937, 1950, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

Photographs (cont):

Photograph 2. East façade of house showing oriel window, camera facing west. 8/8/06.

Photograph 2. Shed, camera facing west. 8/8/06.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

 *Resource Name or # Map Reference 3

P1. Other Identifier: 1443 N. Fowler Avenue
***P2. Location:** ☐ Not for Publication ☒ Unrestricted *a. County Fresno
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Clovis **Date** 1964 (photorevised 1981) **T** ___; **R** ___; __ ¼ **of Sec** ___; _____ **B.M.**
c. Address 5950 E. Olive Avenue City Fresno Zip 93727
d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
310-110-063
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This property contains buildings associated with the Fresno Roofing Company located on the southwest corner of East Olive Avenue and North Fowler Avenue. It is approximately seven miles northeast of downtown Fresno in a rural, agricultural area. Several modern industrial buildings are on the property as well as a residence and shed that are more than fifty years old and are evaluated on this form. The residence was heavily obscured by trees, vegetation and a fence; the shed was less obscured (Photograph 1). (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Single Family Residence (HP2); Ancillary Building (HP4)
***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Shed/Garage, camera facing northwest. 8/8/06

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1950, aerial photographs

***P7. Owner and Address:**
Chester L. Raypholtz Trust
6094 E. Lane Ave
Fresno, CA 93727

***P8. Recorded by:** (Name, affiliation, address)
Rand Herbert/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 8/8/06

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Properties Inventory and Evaluation Report for the Fresno / Yosemite International Airport, September 2006.
***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

***NRHP Status Code** 6Z

***Resource Name or #** Map Reference 3

B1. Historic Name: none

B2. Common Name: Fresno Roofing Company

B3. Original Use: residence B4. Present Use: residence/business

***B5. Architectural Style:** Ranch

***B6. Construction History:** (Construction date, alteration, and date of alterations) original construction: ca. 1950; alteration dates unknown...

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:** _____

B9. Architect: unknown b. Builder: unknown

***B10. Significance: Theme** n/a **Area** n/a

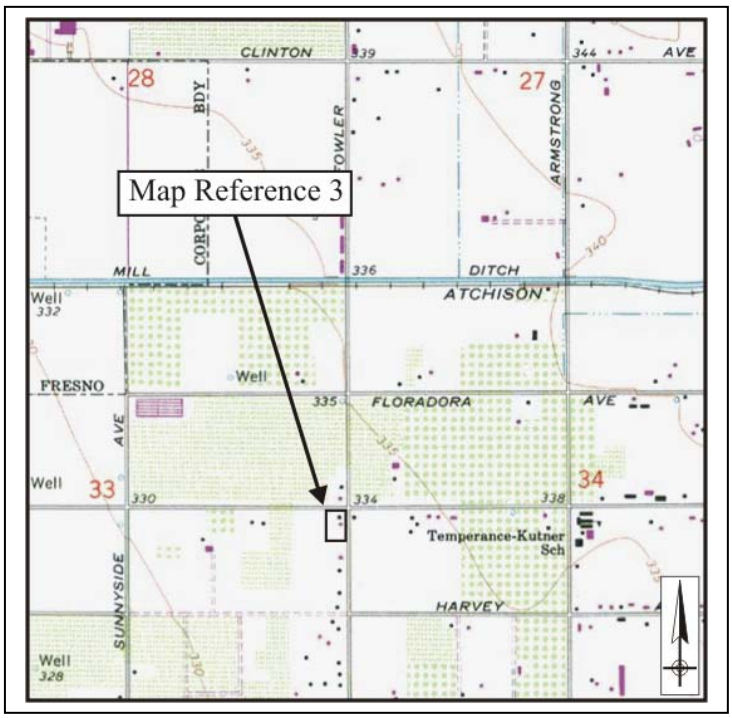
Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 5950 East Olive Avenue does not appear to meet the criteria for listing in the National Register of Historic Places, nor does it appear to be an historic resource for the purposes of the California Environmental Quality Act (CEQA). The property, built around 1950, is located on the southwest corner of Olive Avenue and Fowler Avenue in Fresno, California. The house is part of a larger property containing the Fresno Roofing Company; it is currently used as a residence and storage. The property is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A / Criterion 1), or with the lives of persons significant in our past (Criterion B / Criterion 2). Nor does it embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, this building is otherwise documented and does not appear to be a principal source of important information in this regard. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) _____

***B12. References:** Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 17-38, 169-177. Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980); Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919); *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892); Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891). **See Footnotes.**



B13. Remarks:

***B14. Evaluator:** Steven J. Melvin/Rand Herbert

***Date of Evaluation:** August 2006

(This space reserved for official comments.)

P3a. Description (continued):

The residence, built about 1950, is a single story building with a rectangular plan and an east facing façade (Photographs 1 and 2). Wood framing rests on a concrete foundation and supports a medium pitched, side gable roof with shallow eaves. Stucco sheaths the walls and composition shingles top the roof. The windows are sliding metal sash and the entryway is recessed.

Attached to the south end of the house is a one and a half story shed (Photograph 1). It has a concrete foundation, steel framing, and a side gable roof. The roof is clad in corrugated metal sheets; it was not possible to identify the siding of the building, although it appears to be wood. The north end of the shed is enclosed with a window and roll-up garage door on the east end; a personnel door is on the south end of this portion of the shed. On the south end of the building is an open bay.

B10. Significance (continued):

Historic Context

Agricultural development of the area near this property began about 1870. Wheat was the first crop cultivated in the area, but after irrigation canals were built in the early 1870s, production shifted to grapes and orchard crops. A. Y. Easterby, Moses J. Church, and others founded the Fresno Canal and Irrigation Company (FCIC) and built the Fresno (or Church) Canal in 1872. Development of this irrigation system, with water from the Kings River, included acquisition of earlier existing canals and construction of additional canals such as the Mill Ditch in 1878, and branches over the following decades. Fresno City was established as a result of the Central Pacific Railroad survey and development of the town site. Church sold the FCIC to San Franciscan E. B. Perrin in 1887, who acquired the Laguna de Tache grant, and its riparian rights in 1891 expanding further the FCIC's system. Perrin lost control of the FCIC after the economic crisis of 1893. The FCIC later became part of the Fresno Irrigation District (FID) in 1921. Both the expansion of the FCIC in the 1890s and the FCIC's integration into FID encouraged greater development of the area. Some landowners in the area, such as Moses Church, sold their land for the development of agricultural colonies. Such colonies were a popular means of land settlement in Fresno County from the 1870s to the 1890s. The property at 5950 East Olive Avenue was first subdivided as part of the Nevada Colony.[1]

Agricultural development of the area near this property began about 1870. Wheat was the first crop cultivated, but after irrigation canals were built in the early 1870s, production shifted to grapes and orchard crops. Some landowners in the area, such as Moses Church, sold their land for the development of agricultural colonies. Such colonies were a popular means of land settlement in Fresno County from the 1870s to the 1890s. The property at 5950 East Olive Avenue (Map Reference 3) was first subdivided as part of the Nevada Colony.[2]

The Nevada Colony encompassed Sections 31, 32, and 33 T13S/R21E MDBM, just south of FAT. Moses Church owned this land and sold it in 1879 to S. A. Miller, editor of the Fresno Republican, who became the colony's chief promoter. Miller, a former Nevada miner, enticed many of his Nevada acquaintances to invest in the colony. As opposed to the nearby Temperance and Scandinavian colonies, land in the Nevada Colony sold in larger parcels. More common were tracts of 80

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[1] Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 14-19; "Historic Architectural Survey Report Highway 180, Fowler Avenue to Cove Avenue," JRP Historical Consulting Services, 1992, 14-16; Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980), 68, 76, 99, 90, 91, 84, 102, 107, 1875 map; I. Teilman, W.H. Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties in Central California* (Fresno: Williams and Son, 1943), 17-18, 21-24.
[2] "Historic Architertural Survey Report," 15, 16.

and 160 acres, the majority of it planted in vineyards. This colony received water from the Mill Ditch. Some of the early landowners of this property were H.E. Trueworthy, G.M. Howard, and H. Melkon. There was a building on this parcel as early as 1891. By 1937, there was a substantial farmstead on the parcel. The residence evaluated in this report was built around 1950 and coexisted with many of the earlier farm buildings. Eventually, many of those farm buildings were demolished. At some point after 1981, construction of several industrial buildings occurred west of the residence as part of the Fresno Roofing Company.[3]

The agricultural nature of the area near FAT persisted into the twentieth century with vineyards and fruit orchards the prevailing plantings. By 1907, a north/south running Southern Pacific Railroad line entered the area, passing between Sections 32 and 33 in the Nevada Colony. At about the same time, the Fresno Interurban Railroad laid east/west running tracks along the northern edge of the colony, parallel to the Mill Ditch.[4]

The pattern of agricultural land use began to change in 1941 with the construction of the Fresno Army Air Base/Hammer Field about one and a half miles west. During the following decades, the urban areas of Fresno and Clovis began encroaching into the area from the south, west, and north as these communities experienced population growth. The relocation of Fresno State College, today's California State University, Fresno, in the 1940s also brought development into the area. Despite these changes, the area in the immediate vicinity of 5950 East Olive remains largely agricultural.[5]

Evaluation

This building is associated with the post-World War II development of the area. It is not, however, important within that context (Criterion A/ Criterion 1), or associated with persons important to local, state, or national history (Criterion B / Criterion 2). The house appears to be a modest example of a Ranch style, but an accurate determination is difficult because the view of the structure is nearly obscured by trees and other vegetation. The Ranch style was the most popular style in the country in the 1950s and 1960s and this residence does not embody the distinctive characteristics of this type (Criterion C / Criterion 3). An accurate appraisal of the building's integrity was impossible because of the partially obscured visibility.

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[3] *Fresno Republican* 25 January 1879; Vandor, *History of Fresno County*, 263-264; *History of Fresno County, California with Illustrations*, 115; *Fresno Republican* 13 December 1879; 5 August 1882; *History of Fresno County, California with Illustrations*, 115; *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892), 64; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; W. Harvey Sr., *Atlas of Fresno County, California* (Fresno: W. Harvey Sr., 1907), 23; Progressive Map Service, *Progressive Atlas of Fresno County* (Fresno: Progressive Map Service, 1920), 29; Progressive Map Service, *Key Map of Fresno County and Portions of Kings and Tulare County Ownership Atlases* (Fresno: Progressive Map Service, 1935); USGS, *Clovis Quadrangle,* 1964, 1981.

[4] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, E-4; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

[5] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History," E-4; Aerial Photographs 1937, 1950, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

Photographs (cont):

Photograph 2. South end of residence, camera facing northwest. 8/8/06.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

 ***Resource Name or #** Map Reference 4

P1. Other Identifier: Hank's Swank Par 3 Golf Course
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Fresno
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Clovis **Date** 1964 (photorevised 1981)**T**___; **R** ___; __ ¼ **of Sec** ___; _____ **B.M.**
c. Address 1442 North Fowler Avenue City Fresno Zip 93727
d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
310-130-83
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This property, built about 1949, is at the southeast corner of Fowler Avenue and Olive Avenue about seven miles northeast of downtown Fresno. It is set in a rural, agricultural area. The parcel contains a small golf course and several associated buildings. The residence evaluated on this form is the only building evaluated on the parcel. It is a 3,000 square foot, single story California Adobe Ranch style house with an irregular plan and a west facing façade (Photograph 1). A concrete foundation supports adobe brick walls and a medium pitch hipped roof with overhanging eaves and exposed rafters. The roof has gable ends near the roof peaks containing wood slat vents. There is a cross gable section in the rear of the house (Photograph 2) and the south half of the roof is stepped down from the north half. The gable end and a portion of the rear wall are clad in board and batten siding; wood shake shingles cover the roof. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Single Family Residence (HP2)
***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. **Description of Photo:** (View, date, accession #) Photograph 1. Residence, camera facing east. 8/8/06

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1949, aerial photographs, county records

***P7. Owner and Address:**
Henry F. Bocchini
6101 E. Olive Ave.
Fresno, CA 93727

***P8. Recorded by:** (Name, affiliation, address)
Rand Herbert/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 8/8/06
***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Properties Inventory and Evaluation Report for the Fresno / Yosemite International Airport, September 2006.
***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

***NRHP Status Code** 6Z

***Resource Name or #** Map Reference 4

B1. Historic Name: none

B2. Common Name: Hank's Swank Par 3 Golf Course

B3. Original Use: residence B4. Present Use: residence/business

***B5. Architectural Style:** California Adobe Ranch

***B6. Construction History:** (Construction date, alteration, and date of alterations) original construction: ca. 1949

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:** _____

B9. Architect: unknown b. Builder: unknown

***B10. Significance: Theme** n/a **Area** n/a

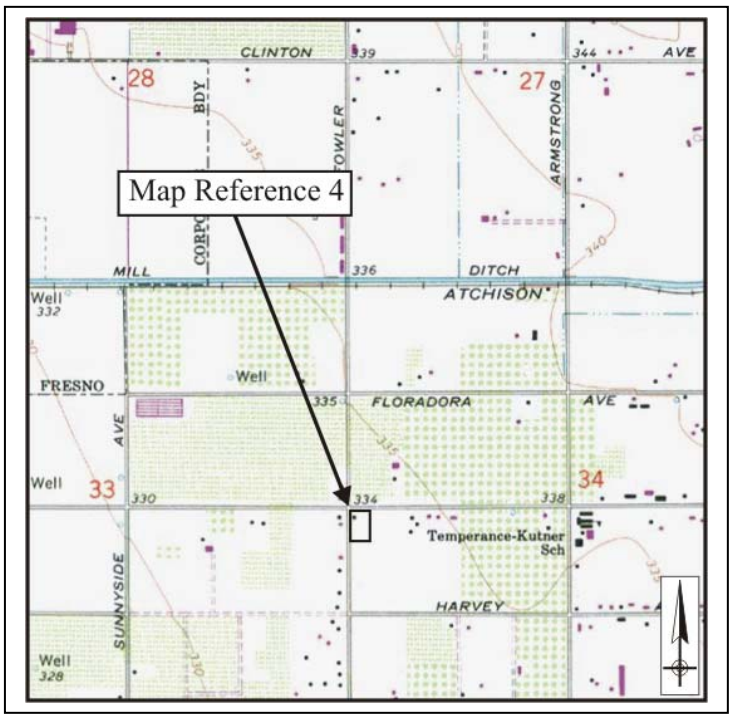
Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 1442 North Fowler Avenue does not appear to meet the criteria for listing in the National Register of Historic Places, nor does it appear to be an historic resource for the purposes of the California Environmental Quality Act (CEQA). The property, built about 1949, is located on the southeast corner of Olive Avenue and Fowler Avenue in Fresno, California. The house is part of a larger property containing Hank's Swank Par 3 Golf Course. The property at 1442 North Fowler Avenue is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A / Criterion 1), or with the lives of persons significant in our past (Criterion B / Criterion 2). Nor does the property embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, this building is otherwise documented and does not appear to be a principal source of important information in this regard. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) _____

***B12. References:** Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 17-38, 169-177. Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980); Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919); *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892); Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891). **See Footnotes.**



B13. Remarks:

***B14. Evaluator:** Steven J. Melvin/Rand Herbert

***Date of Evaluation:** August 2006

(This space reserved for official comments.)

P3a. Description (continued):

Fenestration consists of metal frame casement sets. The front door is set at ground level and is made of vertical wood planks. On each side of the entrance are glass block sidelights. At the rear of the building is another personnel entrance with metal double doors. Emerging from the slope of the rear gable roof section is an interior brick chimney.

B10. Significance (continued):

Historic Context

Agricultural development of the area near this property began about 1870. Wheat was the first crop cultivated in the area, but after irrigation canals were built in the early 1870s, production shifted to grapes and orchard crops. A. Y. Easterby, Moses J. Church, and others founded the Fresno Canal and Irrigation Company (FCIC) and built the Fresno (or Church) Canal in 1872. Development of this irrigation system, with water from the Kings River, included acquisition of earlier existing canals and construction of additional canals such as the Mill Ditch in 1878, and branches over the following decades. Fresno City was established as a result of the Central Pacific Railroad survey and development of the town site. Church sold the FCIC to San Franciscan E. B. Perrin in 1887, who acquired the Laguna de Tache grant, and its riparian rights in 1891 expanding further the FCIC's system. Perrin lost control of the FCIC after the economic crisis of 1893. The FCIC later became part of the Fresno Irrigation District (FID) in 1921. Both the expansion of the FCIC in the 1890s and the FCIC's integration into FID encouraged greater development of the area. Some landowners in the area, such as Moses Church, sold their land for the development of agricultural colonies. Such colonies were a popular means of land settlement in Fresno County from the 1870s to the 1890s. The property at 1442 North Fowler Avenue was first subdivided as part of the Nevada Colony.[1]

The Temperance Colony encompassed Section 34 T13S/R21E MDBM southeast of FAT. The property at 1442 North Fowler were first developed as part of this colony. Moses Church subdivided and began selling the land in 1878 in 20-acre tracts. At first Church, a Seventh Day Adventist, required vows of abstinence from alcohol of settlers; it is not known how strictly he enforced this provision. Church irrigated the colony by the Mill Ditch, which passed along its northern boundary. Grapes were the dominant crop in the Temperance Colony. Some of the early landowners of 1442 North Fowler were Joseph Mandell, Elgin McNab, and Rosa Peluso. There was a building on this parcel as early as 1891. By 1937, there was a substantial farmstead on the parcel consisting of at least five buildings. This house at 1442 North Fowler was built around 1949 and in the next decade, many of the early farm buildings had been demolished. Eventually, all of the early farm buildings were gone. Between 1981 and 1998, Hank's Swank golf course opened adjacent to the residence at 1442 North Fowler, which included construction of a clubhouse immediately south of the residence.[2]

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[1] Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 14-19; "Historic Architectural Survey Report Highway 180, Fowler Avenue to Cove Avenue," JRP Historical Consulting Services, 1992, 14-16; Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980), 68, 76, 99, 90, 91, 84, 102, 107, 1875 map; I. Teilman, W.H. Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties in Central California* (Fresno: Williams and Son, 1943), 17-18, 21-24.

[2] *Fresno Republican,* 7 June 1879; Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919), 264, 1721; Thickens, "Pioneer Agricultural Colonies," 169; *History of Fresno County, California with Illustrations*, 228; Thompson, *Official Historical Atlas*; W. Harvey Sr., *Atlas of Fresno County, California* (Fresno: W. Harvey Sr., 1907), 23; Progressive Map Service, *Progressive Atlas of Fresno County* (Fresno: Progressive Map Service, 1920), 29; Progressive Map Service, *Key Map of Fresno County and Portions of Kings and Tulare County Ownership Atlases* (Fresno: Progressive Map Service, 1935), 41; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; USGS, *Clovis Quadrangle,* 1964, 1981; Aerial photograph accessed at http://terraserver.microsoft.com/advfind.aspx, September 2006.

The agricultural nature of the area near FAT persisted into the twentieth century with vineyards and fruit orchards the prevailing plantings. By 1907, a north/south running Southern Pacific Railroad line entered the area, passing between Sections 32 and 33 in the Nevada Colony. At about the same time, the Fresno Interurban Railroad laid east/west running tracks along the northern edge of the colony, parallel to the Mill Ditch.[3]

The pattern of agricultural land use began to change in 1941 with the construction of the Fresno Army Air Base/Hammer Field about one and a half miles west. During the following decades, the urban areas of Fresno and Clovis began encroaching into the area from the south, west, and north as these communities experienced population growth. The relocation of Fresno State College, today's California State University, Fresno, in the 1940s also brought development into the area. Despite these changes, the area in the immediate vicinity of 5993 East Olive remains largely agricultural.[4]

Adobe Construction

Adobe buildings are one of the earliest forms of construction. Created from a mixture of sand and clay with grass or straw as a binder, the bricks were molded in wood forms and sun dried and then joined with mud mortar. Because the exterior walls were load bearing, they constructed in an alternating double course, creating a thick wall with deep reveals around the door and window openings. Windows and doorways received large timber lintels to for further structural support.[5]

A revival of adobe construction occurred in the middle decades of the twentieth century. Builder Hugh W. Comstock of Carmel, California popularized the post-adobe method. The technique employed sturdy timber post framing with adobe bricks placed between the posts. In Fresno, architects Ernest J. Kump and Charles H. Franklin began building adobe houses in the 1930s. The pair built a cluster of Adobe Ranch style homes on north Wilson Avenue. These are not post-adobe houses, but appear to be constructed without framing, although they may have concealed steel framing. Adobe construction continued to be popular in Fresno and throughout California into the 1950s.[6]

The residence at 1442 North Fowler, constructed around 1950, used a modern type of adobe bricks made from emulsified asphalt stabilizer, soil, and water. The material is waterproof, soundproof, insectproof, and fireproof, and has a high insulating factor. The bricks are laid in a common bond with cement mortar. Advocates of the style touted it as an easy, inexpensive means for amateurs to build their own home. It is not know who the architect or builder of the home at 1442 North Fowler Avenue was, but it is of the era when the Adobe Ranch style was popular.

Evaluation

As the Fresno area grew, single family residences began appearing in the rural areas on the fringe of the city. Additionally, commercial ventures, especially those requiring large amounts of land located in the same areas. This building, part of a larger golf course property, is associated with the post-World War II development of the area. It is not, however, important within that context and does not have important associations with significant events (Criterion A / Criterion 1). Research on

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[3] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, E-4; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.
[4] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History," E-4; Aerial Photographs 1937, 1950, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.
[5] "*Brief 5: Preservation of Historic Adobe Buildings*." Heritage Preservation Services. www2.cr.nps.gov/
[6] Information on architects and adobe houses in Fresno available at http://historicfresno.org/. Accessed September 2006; Hugh M. Comstock, *Post-Adobe* (Carmel-by-the-Sea, California: Hugh W. Comstock, 1948), passim; George C. Follis and Louis E. Dobson, *How to Build Adobe and Concrete Block Houses* (Culver City, California: Murray and Gee, Inc., 1948), passim.

the property did not reveal any building occupants who have made significant contributions to local, state, or national history (Criterion B / Criterion 2).

This building is an Adobe Ranch style residence defined by its single story, low-to-the-ground construction, use of adobe bricks, wide façade, wide eaves, and reflects Spanish inspiration. The style was popular in the California in the 1940s and 1950s with a number of Adobe Ranch houses in Fresno, several of which are recognized by the City of Fresno as historically important. The residence at 1442 North Fowler, however, is not among the best examples of this style and does not embody the distinctive characteristics of this type (Criterion C / Criterion 3). Although the residence retains integrity to its period of construction, it lacks historical significance.

Photographs (cont):

Photograph 2. North and east sides of residence, camera facing southwest. 8/8/06.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

 ***Resource Name or #** Map Reference 5

P1. Other Identifier: none

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Fresno
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5′ Quad** Clovis **Date** 1964 (photorevised 1981)**T**___; **R** ___; __ ¼ **of Sec** ___; _____ **B.M.**

c. Address 6672 Floradora Avenue City Fresno Zip 93727

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
310-080-31S

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This 7.49 acre property contains a residence, a garage, and a barn. The garage is the only building more than fifty years old. A faux wood fence is at the perimeter of the property and a thick hedge is in front of the buildings, somewhat obscuring the view. Several large trees grow on the lot, which is set in a rural, agricultural area approximately seven miles northeast of downtown Fresno. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Single Family Residence (HP2); Ancillary Buildings (HP4)

***P4. Resources Present:** ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. garage, camera facing northwest. 8/8/06

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1950, aerial photographs

***P7. Owner and Address:**
Joe Lopes
6672 E. Floradora Ave.
Fresno, CA 93727

***P8. Recorded by:** (Name, affiliation, address)
Rand Herbert/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 8/8/06

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Properties Inventory and Evaluation Report for the Fresno / Yosemite International Airport, September 2006.

***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

***NRHP Status Code** 6Z

***Resource Name or #** Map Reference 5

B1. Historic Name: none

B2. Common Name: none

B3. Original Use: farmstead B4. Present Use: farmstead

***B5. Architectural Style:** utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations) original construction: ca. 1950; other buildings after 1957

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:** _____

B9. Architect: unknown b. Builder: unknown

***B10. Significance: Theme** n/a **Area** n/a

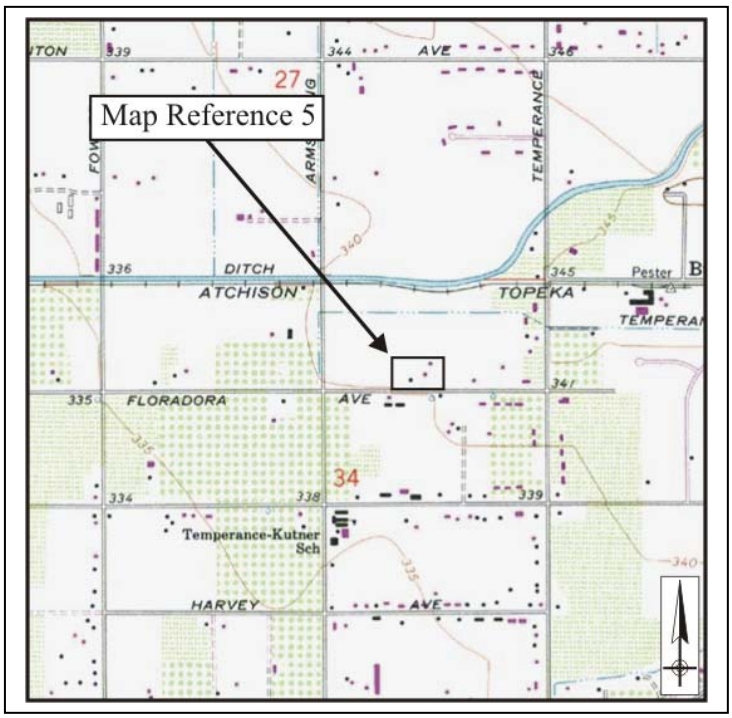
Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property at 6672 East Floradora Avenue does not appear to meet the criteria for listing in the National Register of Historic Places, nor does it appear to be an historic resource for the purposes of the California Environmental Quality Act (CEQA). The garage, ca. 1950, is located on the north side of Floradora Avenue, just east of Armstrong Avenue in Fresno, California. The garage is part of a larger farmstead along with a modern house and barn. Research did not reveal an exact date of construction for the modern buildings but aerial photographs indicate it was after 1957. The current house and barn replaced previous buildings. The prior house was in roughly the same location as the current house, but was much smaller. The prior barn was north of the current barn. The property at 6672 East Floradora Avenue is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A / Criterion 1), or with the lives of persons significant in our past (Criterion B / Criterion 2). Nor does the property embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, this building is otherwise documented and does not appear to be a principal source of important information in this regard. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) ____

***B12. References:** Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 17-38, 169-177. Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980); Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919); *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892); Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891). **See Footnotes.**



B13. Remarks:

***B14. Evaluator:** Steven J. Melvin/Rand Herbert

***Date of Evaluation:** August 2006

(This space reserved for official comments.)

P3a. Description (continued):

The 3,328 square foot, Ranch style house has an L-shape plan and a south facing façade (Photograph 2). It is two story on the west half and single story on the east half. A concrete foundation supports a wood frame topped by a medium slope, side gable roof. At the gable peaks of the two story section are louver vents. Cladding consists of horizontal wood siding and wood shingles. A full width, integral shed roof is on both the south and north facades with exposed rafters. At the east end of the building are two brick, exterior, stepped chimneys; a similar chimney is on the west end. Fenestration consists of 4/4 double hung on the first floor and metal frame sliding windows on the second floor. The entrance is recessed near the center of the façade.

Between the house and barn on the property is a one and a half story, three bay garage with a rectangular plan that faces south (Photograph 1). The concrete foundation supports a wood frame and a medium slope, side gable roof. Board and batten siding covers the walls and corrugated metal sheets top the roof. On the west end of the south façade is a personnel door. No windows were visible on the building.

Northeast of the garage is a single story barn with a rectangular plan (Photograph 3). The barn has a concrete foundation and walls constructed of board form concrete on the lower half and wood frame on the upper half. Topping the building is a medium slope, side gable roof with a vented monitor on the east half. Cladding consists of horizontal wood siding and composition shingle roofing. On the south façade is a top hung sliding door; a personnel door is on the west façade. Fenestration consists of several unglazed windows.

B10. Significance (continued):

Historic Context

Agricultural development of the area near this property began about 1870. Wheat was the first crop cultivated in the area, but after irrigation canals were built in the early 1870s, production shifted to grapes and orchard crops. A. Y. Easterby, Moses J. Church, and others founded the Fresno Canal and Irrigation Company (FCIC) and built the Fresno (or Church) Canal in 1872. Development of this irrigation system, with water from the Kings River, included acquisition of earlier existing canals and construction of additional canals such as the Mill Ditch in 1878, and branches over the following decades. Fresno City was established as a result of the Central Pacific Railroad survey and development of the town site. Church sold the FCIC to San Franciscan E. B. Perrin in 1887, who acquired the Laguna de Tache grant, and its riparian rights in 1891 expanding further the FCIC's system. Perrin lost control of the FCIC after the economic crisis of 1893. The FCIC later became part of the Fresno Irrigation District (FID) in 1921. Both the expansion of the FCIC in the 1890s and the FCIC's integration into FID encouraged greater development of the area. Some landowners in the area, such as Moses Church, sold their land for the development of agricultural colonies. Such colonies were a popular means of land settlement in Fresno County from the 1870s to the 1890s. The property at 6672 East Floradora was first subdivided as part of the Temperance Colony.[1]

The Temperance Colony encompassed Section 34 T13S/R21E MDBM southeast of FAT. The properties at 6672 East Floradora were first developed as part of this colony. Moses Church subdivided and began selling the land in 1878 in 20-acre tracts. At first Church, a Seventh Day Adventist, required vows of abstinence from alcohol of settlers; it is not known how strictly he enforced this provision. Church irrigated the colony by the Mill Ditch, which passed along its northern boundary. Grapes were the dominant crop in the Temperance Colony. Some of the early landowners of 6672 East Floradora were Mrs. A. C. Heringlake, T. S. Bond, and Henry H. Backer. Grapes were the dominant crop and one

[1] "Historic Architertural Survey Report," 15, 16.

of the larger vineyards was that of Backer. Part of the Backer Vineyard was located at 6672 Floradora. Backer settled in the the Temperance Colony in the late 1870s and planted it to grapes. He built a residence and barn on his property and eventually expanded his landholdings to other sections and incorporated the Backer Vineyards Company with his sons in 1904. The Backers innovated a method of packing grapes in sawdust, which allowed shipment to the East Coast. The Backer Vineyards continued in this area until the 1920s. There was a building on this parcel as early as 1921. By 1937, there was a substantial farmstead on the lot consisting of at least eight buildings. Around 1950, the garage was built and it became one of the many farm buildings on the lot. By 1957, only approximately four buildings existed. At some point after 1964, construction of the house and barn occurred and the site took on its current configuration.[2]

The agricultural nature of the area near FAT persisted into the twentieth century with vineyards and fruit orchards the prevailing plantings. By 1907, a north/south running Southern Pacific Railroad line entered the area, passing between Sections 32 and 33 in the Nevada Colony. At about the same time, the Fresno Interurban Railroad laid east/west running tracks along the northern edge of the colony, parallel to the Mill Ditch.[3]

The pattern of agricultural land use began to change in 1941 with the construction of the Fresno Army Air Base/Hammer Field about one and a half miles west. During the following decades, the urban areas of Fresno and Clovis began encroaching into the area from the south, west, and north as these communities experienced population growth. The relocation of Fresno State College, today's California State University, Fresno, in the 1940s also brought development into the area. Despite these changes, the area in the immediate vicinity of 5993 East Olive remains largely agricultural.[4]

Evaluation

This building is associated with the post-World War II development of this area. The parcel was originally subdivided as farmland in the late 1870s. There has been a residence on the parcel since at least 1921. By 1937, there were as many as eight buildings on the site, but all were eventually demolished. The current buildings were not part of the original farmstead construction. The garage at 6672 Floradora Avenue does not have important associations with significant historical events (Criterion A / Criterion 1). Research did not reveal any occupants of the property who have made significant contributions to local, state, or national history (Criterion B / Criterion 2).

This building is a utilitarian style garage of common design, construction and materials. It is not distinctive for its type, period, or method of construction (Criterion C / Criterion 3). The building retains integrity to its period of construction, but lacks historical significance.

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[2] *Fresno Republican,* 7 June 1879; Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919), 264, 1721; Thickens, "Pioneer Agricultural Colonies," 169; *History of Fresno County, California with Illustrations*, 228; Thompson, *Official Historical Atlas*; W. Harvey Sr., *Atlas of Fresno County, California* (Fresno: W. Harvey Sr., 1907), 23; Progressive Map Service, *Progressive Atlas of Fresno County* (Fresno: Progressive Map Service, 1920), 29; Progressive Map Service, *Key Map of Fresno County and Portions of Kings and Tulare County Ownership Atlases* (Fresno: Progressive Map Service, 1935), 41; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957.

[3] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History : Final Report," TechLaw, Inc., 1992, E-4; Aerial Photograph, CSU, Fresno Madden Map Library, 13-AB1-48-18, 1937; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-4G-61, AB1-4G-116, 1950; Aerial Photograph, CSU, Fresno Madden Map Library, AB1-53T-21, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

[4] USGS, *Clovis Quadrangle,* 1923, 1946, 1964, 1972, 1981; "Fresno Air Terminal, Site Operations History," E-4; Aerial Photographs 1937, 1950, 1957; Harvey Sr., *Atlas of Fresno County, California*, 23; Progressive Map Service, *Progressive Atlas of Fresno County*, 29.

Photograph 2. View of residence, camera facing northwest. 8/8/06.

Photograph 3. View of barn, camera facing northeast. 8/8/06.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ Reviewer _____ Date _____

 ***Resource Name or #** Map Reference 6

P1. Other Identifier: Mill Ditch
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Fresno
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Clovis **Date** 1964 (photorevised 1981) **T** ___; **R** ___; __ ¼ **of Sec** ___; _____ **B.M.**
c. Address _____ City Fresno Zip 93727
d. UTM: (give more than one for large and/or linear resources) Zone _____; _____mE/ _____mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
Approximately seven miles northeast of downtown Fresno at the intersection of the Mill Ditch and Fowler Avenue, Armstrong Avenue, and Temperance Avenue.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The section of Mill Ditch evaluated for this form is approximately two miles long between Clovis Avenue on the west and Temperance Avenue on the east. It generally passes through agricultural land, with some areas containing residences and farm buildings. The canal appears trapezoidal in cross section and is approximately 60 feet wide (Photograph 1). An accurate assessment of depth and bottom width was not possible because of water in the canal. The bottom and sides are unlined, although there are segments with concrete rubble rip rap. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) Canal (HP20)
***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) Photograph 1. Mill Ditch at Armstrong Avenue, camera facing east. 8/8/06.

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
1878, *California Historical Quarterly* 25 (June 1946): 169; Online Archive of California

***P7. Owner and Address:**
Fresno Irrigation District
2907 South Maple Avenue
Fresno, CA 93725

***P8. Recorded by:** (Name, affiliation, address)
Rand Herbert/ Steven J. Melvin
JRP Historical Consulting, LLC
1490 Drew Ave, Suite 110,
Davis, CA 95618

***P9. Date Recorded:** 8/8/06
***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Historic Properties Inventory and Evaluation Report for the Fresno / Yosemite International Airport, September 2006.
***Attachments:** ☐ None ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

L1. Historic and/or Common Name: Mill Ditch

L2a. Portion Described: ☐ Entire Resource ☐ Segment ☒ Point Observation **Designation:** MD-1; MD-2; MD-3

***b. Location of point or segment:** MD-1, at Fowler Avenue: 260612mE, 4072127mN; MD-2, at Armstrong Avenue: 261431mE, 4072104mN; MD-3 at Temperance Avenue: 262260mE, 4073346mN

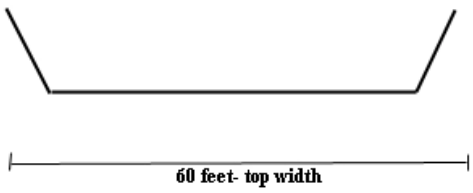
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)
(See Section P3a)

L4. Dimensions: (in feet for historic features and meters for prehistoric features)

a. **Top Width** approximate 60 feet
b. **Bottom Width** unknown
c. **Height or Depth** unknown
d. **Length of Segment** approx. 2 miles

L5. Associated Resources:

L4e. Sketch of Cross-Section **Facing:** West



L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)
This segment of the canal is in a rural, agricultural setting. Most of the segment is adjacent to farm fields. In some spots the canal runs by residences and farmbuildings.

L7. Integrity Considerations: This portion of the canal is lined with concrete rubble rip rap somewhat diminishing its integrity of materials and workmanship. It also no longer flows into downtown Fresno to provide power to a flourmill, one of the primary purposes for its construction diminishing its integrity of design and association. The Mill Ditch has also lost some of its integrity of setting, especially as it moves west and passes by industries, the airport, and dense housing tracts.

L8b. Description of Photo, Map, or Drawing:
Photograph 2. Mill Ditch at Temperance Avenue (MD-3), camera facing west.

L9. Remarks:

L10. Form prepared by:
Steven J. Melvin/Rand Herbert
JRP Historical Consulting Services,
1490 Drew Ave, Suite 110,
Davis, CA 95616

L11. Date: 8/8/06

***NRHP Status Code** 6Z

***Resource Name or #** Map Reference 6

B1. Historic Name: Mill Ditch

B2. Common Name: Mill Ditch

B3. Original Use: water conveyance B4. Present Use: water conveyance

***B5. Architectural Style:** utilitarian

***B6. Construction History:** (Construction date, alteration, and date of alterations) original construction: 1878

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:** _____

B9. Architect: _____ b. Builder: Fresno Canal and Irrigation Company, Moses Church

***B10. Significance: Theme** n/a **Area** n/a

Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Mill Ditch does not appear to meet the criteria for listing in the National Register of Historic Places, nor does it appear to be an historic resource for the purposes of the California Environmental Quality Act (CEQA). This portion of the canal, built in 1878, is an approximately two miles portion is located in T13S/R21E MDBM and runs east to west along the north border of sections 33 and 34 in Fresno, California. The canal was built as part of the Fresno Canal and Irrigation Company (FCIC) system, at the time owned by Moses Church. Church also owned the Champion Flour Mill on Fresno and N streets in downtown Fresno and built the canal, in part, to power his mill. The Mill Ditch also irrigated farmland along its route including some belonging to Church, some of which he sold as small farm lots. In 1921, the ditch became part of the Fresno Irrigation District and continues to the present to provide water to Fresno County. The Mill Ditch does not have important associations with events that have made a significant contribution to the broad patterns of our history (Criterion A / Criterion 1), or with the lives of persons significant in our past (Criterion B / Criterion 2). Nor does it embody the distinctive characteristics of a type, period, or method of construction (Criterion C / Criterion 3). In rare instances, buildings themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, these buildings are otherwise documented and do not appear to be a principal source of important information in this regard. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) ____

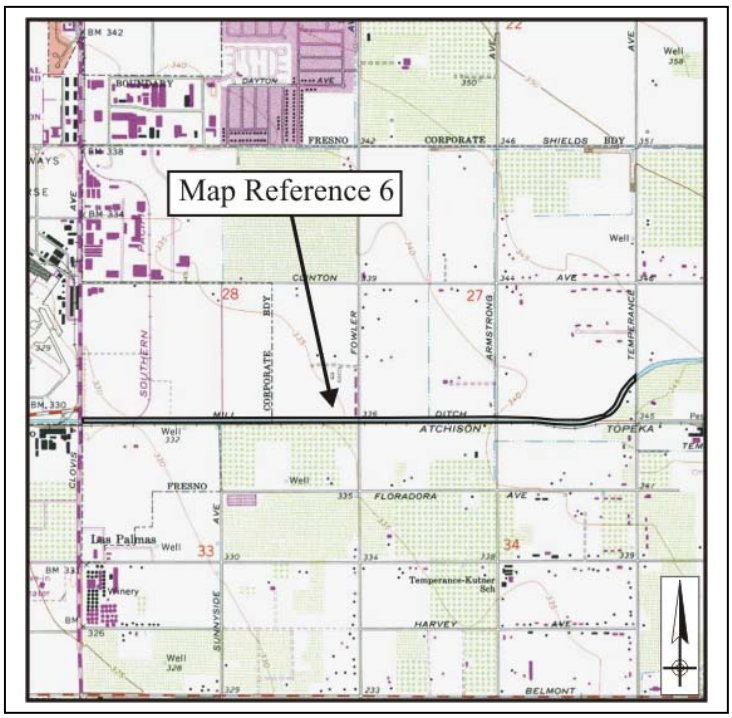
***B12. References:** Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 17-38, 169-177. Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980); Paul E. Vandor, *History of Fresno County, California with Biographical Sketches* (Los Angeles: Historic Record Company, 1919); *A Memorial and Biographical History of the Citizens of Fresno, Tulare, and Kern Counties, California* (Chicago: Lewis Publishing Company, 1892); Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891). **See Footnotes.**

B13. Remarks:

***B14. Evaluator:** Steven J. Melvin/Rand Herbert

***Date of Evaluation:** August 2006

(This space reserved for official comments.)



P3a. Description (continued):

At Fowler Avenue a modern bridge crosses the canal. There are gravel access roads on both sides of the canal at this point. On the south side of the canal west of Fowler Avenue there are railroad tracks (Photograph 3). Agricultural land is north and south of the canal both east and west of the bridge. At Armstrong Avenue a modern bridge crosses the Mill Ditch. Here there are gravel access roads on both sides (Photograph 4). To the west of this intersection is a drop gate. Agricultural land surrounds the canal on all sides except for a farmhouse on the southwest corner of this intersection. At Temperance Avenue an older bridge crosses the canal and an access road is present only on the north side of the ditch. West of the Temperance Avenue bridge a water pipe crosses the canal. At the northwest corner of this intersection is a subdivision, at the southwest corner is a residence, at the northeast corner is a farm building, and on the southeast corner is agricultural land.

B10. Significance (continued):

Historic Context

Irrigation

Settlement near Fresno began during the Gold Rush with towns like Millerton and Centerville being established. Stock raising prevailed after miners exhausted the area's meager mineral resources and Spanish cattle and sheep roamed the dry, open land. Most of the herders in the region did not own the land, but grazed their stock on government land. The first significant investors in land where Fresno was established were Isaac Friedlander, William Chapman, and the German Land Association. A. Y. Easterby was a member of the German Land Association and established a 5000-acre ranch south of the APE area in T14S/R21E MDBM.[1]

Easterby, however, was not content to raise cattle. After witnessing some small-scale irrigation projects east of his ranch near the settlement of Centerville on the King's River, Easterby envisioned a grander irrigation project to water not only his land, but vast tracts in the region. In 1870, he hired a local sheepman, Moses J. Church, to accomplish the task. Church began by purchasing the existing canals near Centerville, and later Church, Easterby, and others incorporated the Fresno Canal and Irrigation Company (FCIC). Church acted as manager of the company and sought to extend the canal system throughout the Fresno plains.[2]

A second irrigation company, the Kings River and Fresno Canal Company (KRFCC), incorporated in 1873 by L.A. Gould, Henry Voorman, George Eggers, and others. The KRFCC drew water from the Kings River north of the FCIC intake and watered land via the Enterprise and Gould canals, north of land served by the FCIC. A ten-year legal battle ensued between the two companies over water rights to the Kings River beginning in 1875. At the end of the proceedings, the KRFCC lost most of its water rights and the court ordered it to fill in its main canal at the headgate. Following this decision, the FCIC purchased its rival and took over operation of its canals.[3]

Water began flowing through the first leg of the FCIC's main canal, known as the Fresno Canal or the Church Canal, in 1872. It flowed west from the Kings River from a division in Section 35 T13S/R19E MDBM, and construction extending it proceeded piecemeal for several years. Naturally, Easterby was one of the first to make use of the canal water and his oasis

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[1] Virginia E. Thickens, "Pioneer Agricultural Colonies in Fresno County," *California Historical Quarterly* 25 (June 1946): 18-19.
[2] "Historic Architectural Survey Report Highway 180, Fowler Avenue to Cove Avenue," JRP Historical Consulting Services, 1992, 14-16; Paul H. Willison, *Past, Present, and Future of the Fresno Irrigation District* (1980), 68, 76, 99; Thickens, "Pioneer Agricultural Colonies," 18-19.

[3] Willison, *Past, Present, and Future,* 68, 76; "Historic Architectural Survey Report," 14-16.

of green fields created a stark contrast to the desert surroundings. The sight attracted the attention of Central Pacific Railroad surveyors and motivated them to locate the town site of Fresno City in 1872. After the establishment of Fresno, Church acquired the rights of way for future canals and branches in 121 sections in four townships, with the provision that construction occur by 1879. This purchase gave the FCIC the potential to run canals through 77,000 acres of prime farmland. As the canals irrigated more land in the area, the population grew and the county seat transferred from Millerton to Fresno City in 1874. Fresno and the FCIC continued to grow and by 1876, the FCIC had extended the Fresno Canal over twenty miles to an agricultural settlement south of Fresno City.[4]

Growth of the FCIC proceeded at a steady pace, but it did not come without some difficulty. The company had financial problems in 1877 and Church lost his company to the Bank of Nevada. The bank, finding canal operations less profitable than anticipated, sold the FCIC back to Church five months later. Church then continued to expand his canal network until it reached lands on all sides of Fresno City. Church sold the FCIC to San Franciscan E. B. Perrin in 1887. Perrin had acquired the Laguna de Tache grant in 1891, which extended westward from the north bank of the King's River, with its riparian water rights, giving the FCIC more water and touching off a land boom in Fresno County. The economic slowdown of 1893, however, put the FCIC in financial trouble. Perrin lost the company to English capitalists in 1894; by 1898, it was irrigating over 160,000 acres. The English syndicate controlled the company until it became part of the Fresno Irrigation District (FID) in 1921. At the time of this last acquisition, the FCIC had over 600 miles of canals. Today the FID continues to provide irrigation water to Fresno County.[5]

Mill Ditch

After Church reacquired the FCIC from the Bank of Nevada in 1877, he built another branch to the canal system completed in 1878. The Mill Ditch (Map Reference 6) began in Section 31 T13S/R20E MDBM where the Fresno Canal turned to the southwest. From there it went west through land owned by Church in T13S/R21E along what is now McKinley Boulevard and adjacent to the study area for this report (Illustration 1). The ditch passed through this township, into the adjoining township to the west, where it turned southward between sections 35 and 36 and proceeded into downtown Fresno.[6]

The Mill Ditch benefited properties adjacent to its course, especially those belonging to Church. It provided water to four sections of land owned by Church, which he quickly sold for subdivision into small farms. The canal also irrigated the 640-acre Barton Vineyards. In Fresno, the ditch proceeded down Fresno Street to N Street where it powered Church's Champion Flour Mill. From the mill, the canal continued west of the city and irrigated more agricultural land. The canal, however, began to pose a problem for the residents of Fresno. As the Mill Ditch traveled through the city, it became a receptacle for raw sewage. When water was low in the ditch, the odor became overwhelming and drew the ire of neighboring citizens. Objections to the waterway became so strong that the city had it filled in 1892. By that time, Church had sold the mill. It became the Fresno Milling Company and operated by electrical power.[7]

The Mill Ditch continued to provide water to agricultural land in Fresno County outside of the city after 1892. It was an integral part of the FCIC system and irrigated large tracts of land northeast, north, and northwest of Fresno. After 1921, the

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[4] Willison, *Past, Present, and Future*, 90, 91, 84, 1875 map; "Historic Architertural Survey Report," 14-16; Thickens, "Pioneer Agricultural Colonies," 18-19.
[5] I. Teilman, W.H. Shafer, *The Historical Story of Irrigation in Fresno and Kings Counties in Central California* (Fresno: Williams and Son, 1943), 17-18, 21-24; Willison, *Past, Present, and Future*, 102-107.
[6] From the Online Archive of California, identifier frp0127. Available at http://content.cdlib.org/ark:/13030/kt7x0nc9nt/?brand=oac, accessed August 2006; Thomas Hinkley Thompson, *Official Historical Atlas Map of Fresno County* (Tulare, California: [n.p.], 1891), 61.
[7] Thompson, *Official Historical Atlas*, 61; *Fresno, California* (New York: Sanborn Map and Publishing Company, 1885, 1888); *Fresno Republican* 15 July 1882; *Fresno Weekly Republican* 13 March 1893; United States, Department of the Interior, "Water Supply and Irrigation Papers of the United States Geological Survey, No. 18." (Washington: Government Printing Office, 1898), 45, 46; Scott McKay, *Official Map of the County of Fresno, California* (San Francisco: Britton and Rey, 1914).

Mill Ditch became part of the FID network of canals and today it still provides water to farms and people in the Fresno area.[8]

Evaluation

The Mill Ditch is associated with the FCIC, the first irrigation company in Fresno County and one of the first in California to build extensive irrigation works. Irrigation transformed this part of Fresno County and was responsible for the prosperity of the city of Fresno. Water first flowed in the main branch of the FCIC system, the Fresno Canal, in 1872, and by 1876, it extended more than twenty miles and irrigated large tracts of land east and south of Fresno City. The FCIC constructed the Mill Ditch in 1878, as a branch of the Fresno Canal. The Mill Ditch also provided power to Moses Church's Champion Flourmill until 1892 when it was declared a public nuisance and filled in. Church had sold the mill by this time and it subsequently ran on electricity. The mill was an early business in Fresno, but it was not of particular importance. The Mill Ditch did not power any other industries, and it did not set a precedent for canal delivered waterpower in Fresno.

The canal ultimately did irrigate extensive tracts of land east, north, and west of Fresno and made possible the establishment of agricultural colonies such as the Nevada and Temperance colonies. These colonies were two of many begun in Fresno County during the late nineteenth century and are not of particular historical importance. Certainly, the Mill Ditch is important to the lands it irrigated, but all irrigation canals are important in this regard. For such a structure to be historically significant it must rise above the ordinary and be important vis-à-vis other canals. It is, therefore, not historically significant for its association with early irrigation in Fresno County when compared to the Fresno Canal of the FCIC. The Mill Ditch is not important in this regard and it does not have important associations with historically significant events (Criterion A / Criterion 1).

The Mill Ditch is associated with Moses Church, who, with A. Y. Easterby, and others, incorporated the FCIC. Church managed the company and oversaw the construction of the FCIC system. By 1878, when Church constructed the Mill Ditch, he was the sole owner. Church is a historically important person to the history of Fresno County, but the Mill Ditch does not best represent his significance. Because Church managed the construction of the entire FCIC including the Fresno Canal, prior to construction of the Mill Ditch, these other canals, perhaps are better representatives of Church's work. The Mill Ditch, therefore, does not have important associations with historically significant individuals (Criterion B / Criterion 2).

The Mill Ditch is trapezoidal in shape and roughly 60 feet wide at the top. The portion studied is unlined, but has concrete rubble rip rap on the embankments. The design of this canal is typical canal construction and does not embody the distinctive characteristics of this type, period, or method of construction (Criterion C / Criterion 3). The canals integrity is also diminished as stated in Section L7 of the Linear Record above. In rare instances, structures themselves can serve as sources of important information about historic construction materials or technologies (Criterion D / Criterion 4); however, this property is otherwise documented and does not appear to be a principal source of important information in this regard.

[8] Department of the Interior, "Water Supply and Irrigation Papers," 45, 46; McKay, *Official Map of the County of Fresno, California*; USGS, *Clovis Quadrangle,* 1946, 1964, 1972, 1981; Willison, *Past, Present, and Future*, Plate 2.

Photographs (cont):

Photograph 3. Mill Ditch at Fowler (MD-1), camera facing west. 8/8/06.

Photograph 4. Mill Ditch at Armstrong (MD-2), camera facing west. 8/8/06.

September 1, 2006

Fresno Historical Society
7160 West Kearney Boulevard
Fresno, CA 93706

City of Fresno Historic Preservation Program
2600 Fresno Street
Third Floor
Fresno, CA 93721

To Whom It May Concern:

The Fresno Yosemite International Airport (FAT) Master Plan Update has been prepared with varying levels of potential development for the next 20 years. The Environmental Assessment/Environmental Impact Report (EA/EIR) will focus on quantitatively evaluating the near term projects anticipated between 2006 and 2011 that are projected in the Airport Capital Improvement Program (ACIP). The main purpose of the environmental review will be to complete the appropriate level of environmental analysis and documentation necessary to comply with local, state, and federal requirements.

For the purposes of initiating consultation on the Area of Potential Effects (APE), the Federal Aviation Administration (FAA) is defining the APE for archaeological resources as congruent with the proposed development envelopes for the proposed short-term improvements (2006-2011). For historic architectural resources, the FAA is defining the APE as congruent with the airport itself, the portion of the Generalized Study Area that would be subjected to impacts in 2011 that currently do not experience an impact in 2004 (this area is located southeast of FAT), and a site located east of Armstrong Avenue and south of Mill Ditch. This site is approximately two miles east of FAT and about 30 acres in size. The action approved for this site is the construction of a new storm water detention basin. This project component is included in the APE for archaeological resources as well as the APE for architectural resources. A copy of the proposed APE for cultural resources is attached as Enclosure 1.

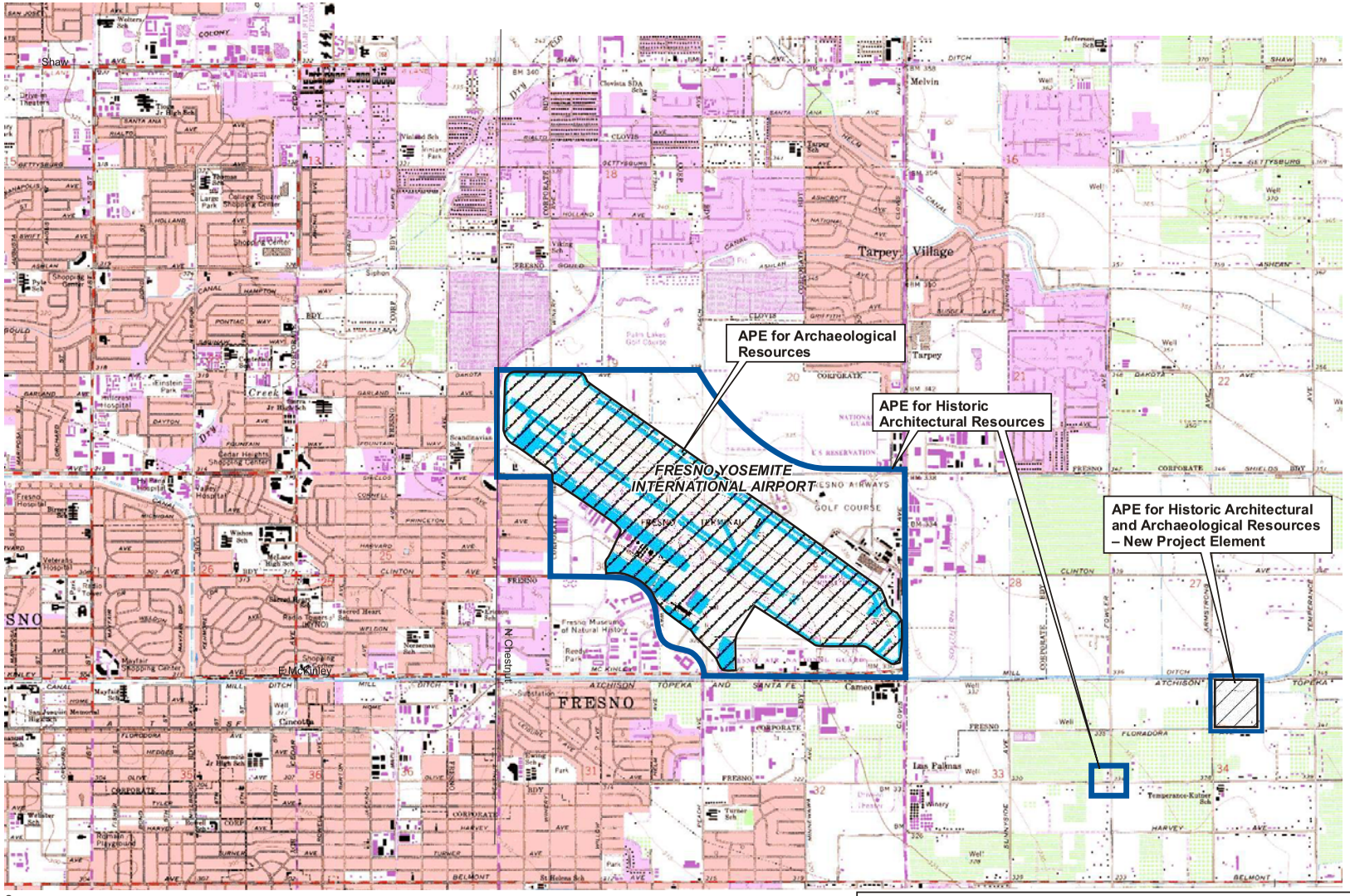
JRP Historical Consulting (JRP) is under contract to URS Corporation to inventory the buildings, structures, and objects in the APE that are more than fifty years old to evaluate their eligibility for listing in the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). This study helps fulfill FATs compliance requirements under Section 106 of the National Historic Preservation Act as well as under the California Environmental Quality Act (CEQA), as it pertains to historical resources.

JRP has identified six buildings on FAT property more than fifty years old: Buildings 76, 97, 66, 85, 86, and 75. In the portions of the APE off FAT property, JRP identified five buildings and structures that are more than fifty years old: 5993 East Olive, 5950 East Olive, 1442 North Fowler, 6672 East Floradora, and Mill Ditch. None of the above listed buildings and structures are subject to demolition. Rather, changes to the Master Plan and new construction have

triggered a mandatory inventory and evaluation of potential historic properties. JRP staff has reviewed national, state, and local historic resource inventories, and are currently working on evaluating the historic significance of the buildings and structures in the FAT APE. If you or your organization has any concerns regarding these resources, please respond to me in writing citing your concerns before October 2, 2006.

Thank you,
ORIGINAL SIGNED

Rand F. Herbert
Principal



LEGEND

- APE for Historic Architectural Resources
- APE for Archaeological Resources

N

0 2500 5000
Scale in Feet

Source:
USGS 7.5 minute Topo Maps,
Fresno North and Clovis, CA (1981) quads

FRESNO YOSEMITE International Airport

CULTURAL RESOURCES AREA OF POTENTIAL EFFECT

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

July 2006
28066717.03001

FIGURE -

7/25/06 vsa ..\28066717 Fresno Airport\EA-EIR 2006\cult res APE_jul06.cdr

ENCLOSURE 3
PRIOR AGENCY COORDINATION

STATE OF CALIFORNIA Arnold Schwarzenegger Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390
Web Site www.nahc.ca.gov

October 13, 2004

Mark Hale
URS Corporation
221 Main St. Suite 600
San Francisco, CA 94105-1917

Sent by Fax: 415-882-9261
Number of Pages: 2

RE: Proposed Airport Master Plan, City and County of Fresno

Dear Mr. Hale:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4040.

Sincerely,

Rob Wood

Rob Wood
Environmental Specialist III

Native American Contacts
Fresno County
October 13, 2004

Santa Rosa Rancheria
Clarence Atwell, Chairperson
P.O. Box 8 Tache
Lemoore , CA 93245 Tachi
Yokut

(559) 924-1278
(559) 924-3583 Fax

Table Mountain Rancheria
Lee Ann Walker Grant, Chairperson
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 822-2587
(559) 822-2693 FAX

Table Mountain Rancheria
Michael Russell, Tribal Administrator
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 822-2587
(559) 822-2693 FAX

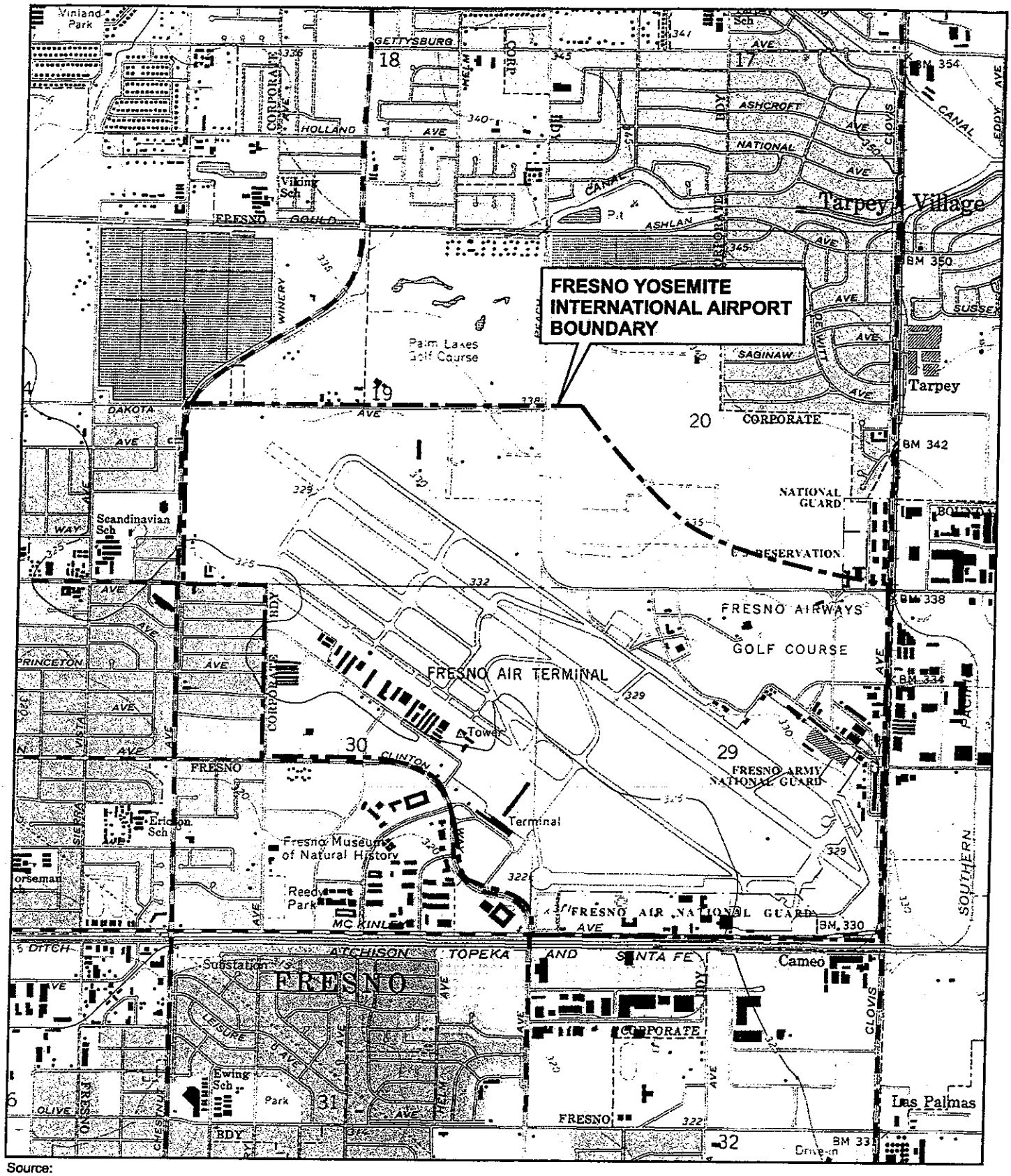
Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 822-2587
(559) 822-2693 FAX

Table Mountain Rancheria
John Goodfellow, Environmental Coordinator
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 822-2587
(559) 822-2693 FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed The Airport mater Plan, City and County of Fresno.



Source:
U.S.G.S. Topographic Map, 7.5 minute series,
Clovis, CA quadrangle, 1964 Photorevised 1981

0 0.5 1.0
Scale in Miles

0 2,000 4,000
Scale in Feet
1:24,000

N

SITE BOUNDARY
FRESNO YOSEMITE INTERNATIONAL AIRPORT

October 2004
28066717

Fresno Airport Master Plan
Fresno, California

URS

FIGURE -

10/07/04 vsa ..\28066717 Fresno Airport\site boundary fyia.cdr

14 October 2004

Clarence Atwell
Chairperson
Santa Rosa Rancheria
P.O. Box 8
Lemoore, Ca 93245

Dear Clarence Atwell,

URS has been retained by the City of Fresno to conduct an Environmental Assessment – Environmental Impact Report on projects related to an updated Fresno Yosemite International Airport Master Plan. The Airport Master Plan has been prepared with varying levels of potential development for the next 20 years. The EA-EIR will focus on the near term projects anticipated in the next 7-10 years that are projected in the Airport Capital Improvement Program (ACIP). The main purpose of the environmental review will be to complete the appropriate level of environmental analysis and documentation necessary to comply with local, state, and federal requirements.

Among the specific tasks to be undertaken, URS is to identify and record all cultural resources within the individual project Area of Potential Effects (APE) and, if needed, provide recommendations for their proper management. As part of the prefield research, I am requesting any information you or others in your community may have regarding properties, features, or materials within the airport boundaries and immediate vicinity that may be of concern to you and other local Native Americans. Any comments you may have regarding this area would be greatly appreciated.

Attached to this request is a portion of the Clovis, Calif. USGS 7.5' topographic quadrangle (1964 photorevised 1981) delineating the current airport boundaries. The airport is situated in Sections 19, 20, 29, 30 of T13S/R21E.

If you have any questions, please feel free to call me directly at (415)-243-3826. Thank you for your cooperation.

Sincerely,

URS Corporation

ORIGINAL SIGNED

Mark R. Hale
Project Archaeologist

Enclosure

14 October 2004

Lee Ann Walker Grant
Chairperson
Table Mountain Rancheria
P.O. Box 410
Friant, CA 93626-0177

Dear Lee Ann Walker Grant,

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URS Corporation

ORIGINAL SIGNED

Mark R. Hale
Project Archaeologist

Enclosure

14 October 2004

Michael Russell
Tribal Administrator
Table Mountain Rancheria
P.O. Box 410
Friant, CA 93626-0177

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URS Corporation

ORIGINAL SIGNED

Mark R. Hale
Project Archaeologist

Enclosure

14 October 2004

Bob Pennell
Cultural Resources Director
Table Mountain Rancheria
P.O. Box 410
Friant, CA 93626-0177

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Enclosure

14 October 2004

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Environmental Coordinator
Table Mountain Rancheria
P.O. Box 410
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Dear John Goodfellow,

URS has been retained by the City of Fresno to conduct an Environmental Assessment – Environmental Impact Report on projects related to an updated Fresno Yosemite International Airport Master Plan. The Airport Master Plan has been prepared with varying levels of potential development for the next 20 years. The EA-EIR will focus on the near term projects anticipated in the next 7-10 years that are projected in the Airport Capital Improvement Program (ACIP). The main purpose of the environmental review will be to complete the appropriate level of environmental analysis and documentation necessary to comply with local, state, and federal requirements.

Among the specific tasks to be undertaken, URS is to identify and record all cultural resources within the individual project Area of Potential Effects (APE) and, if needed, provide recommendations for their proper management. As part of the prefield research, I am requesting any information you or others in your community may have regarding properties, features, or materials within the airport boundaries and immediate vicinity that may be of concern to you and other local Native Americans. Any comments you may have regarding this area would be greatly appreciated.

Attached to this request is a portion of the Clovis, Calif. USGS 7.5' topographic quadrangle (1964 photorevised 1981) delineating the current airport boundaries. The airport is situated in Sections 19, 20, 29, 30 of T13S/R21E.

If you have any questions, please feel free to call me directly at (415)-243-3826. Thank you for your cooperation.

Sincerely,

URS Corporation

ORIGINAL SIGNED

Mark R. Hale
Project Archaeologist

Enclosure

URS

Adele Baldwin
Southern San Joaquin Valley Information Center
California State University, Bakersfield
9001 Stockdale Highway
Bakersfield, CA 93311

7 October 2004

Dear Ms. Baldwin,

URS has been retained by the City of Fresno to conduct an Environmental Assessment – Environmental Impact Report on projects related to an updated Fresno Yosemite International Airport Master Plan. The Airport Master Plan has been prepared with varying levels of potential development for the next 20 years. The EA-EIR will focus on the near term projects anticipated in the next 7-10 years that are projected in the Airport Capital Improvement Program (ACIP). The main purpose of the environmental review will be to complete the appropriate level of environmental analysis and documentation necessary to comply with local, state, and federal requirements.

Among the specific tasks to be undertaken, URS is to identify and record all cultural resources within the individual project Area of Potential Effects (APE) and, if needed, provide recommendations for their proper management. As part of the prefield research, I am requesting any information the Center may have regarding previously recorded cultural resources within the airport property as well as any such resources within one-quarter mile of the airport boundary. I would also like to have information on any previously conducted cultural resource investigations that included all or portions of the facility.

Attached to this request is a portion of the Clovis, Calif. USGS 7.5' topographic quadrangle (1964 photorevised 1981) delineating the current airport boundaries. The airport is situated in Sections 19, 20, 29, 30 of T13S/R21E.

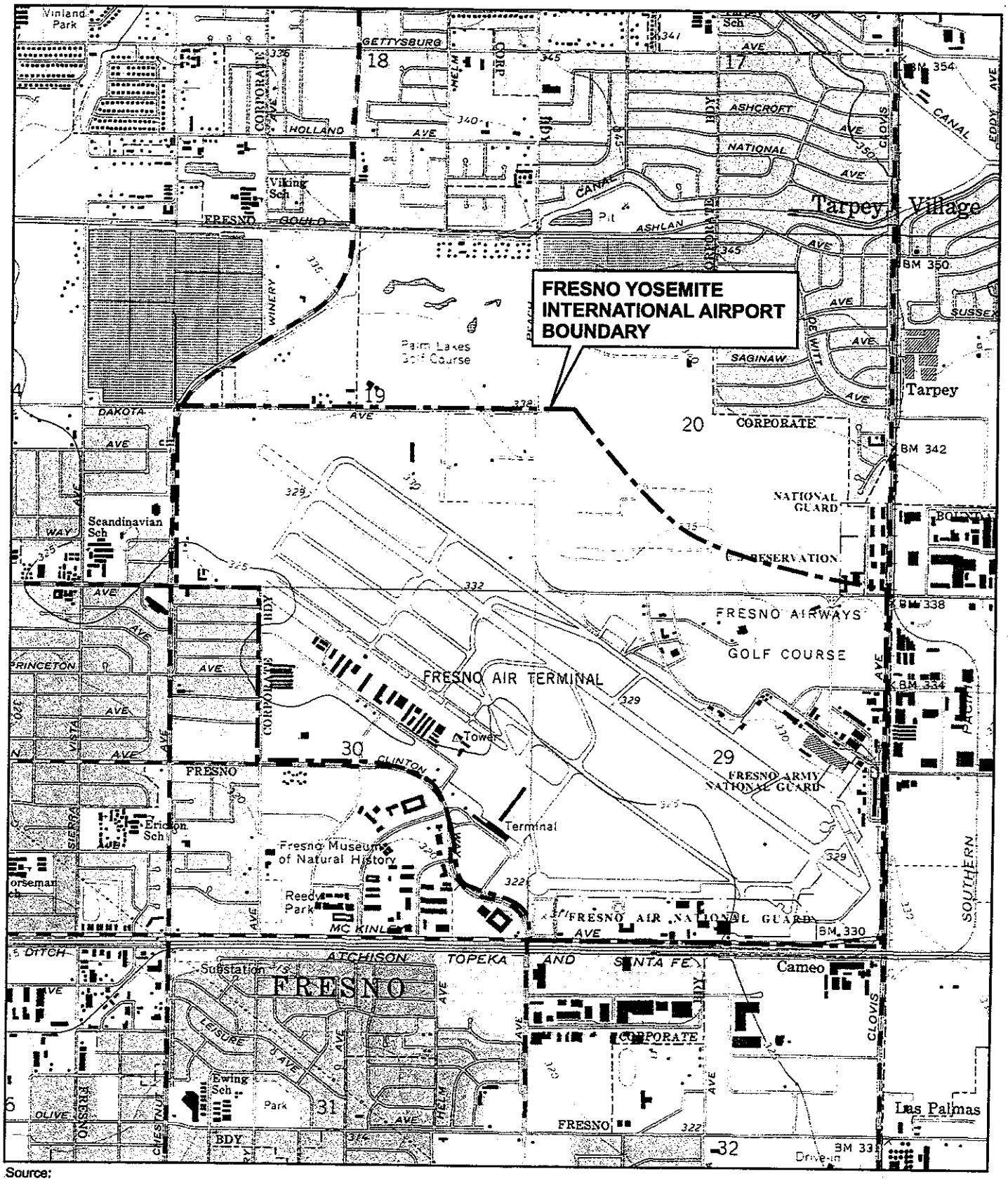
If you have any questions, please feel free to call me directly at (415)-243-3826. Thank you for your cooperation.

Sincerely,

URS

Mark R. Hale
Project Archaeologist

URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94105-1917
Tel: 415.896.5858
Fax: 415.882.9261



Source:
U.S.G.S. Topographic Map, 7.5 minute series,
Clovis, CA quadrangle, 1964 Photorevised 1981

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Scale in Miles

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SITE BOUNDARY
FRESNO YOSEMITE INTERNATIONAL AIRPORT

October 2004
28066717

Fresno Airport Master Plan
Fresno, California

URS

FIGURE -

10/07/04 vsa ..\28066717 Fresno Airport\site boundary fyia.cdr

APPENDIX H
BIOLOGICAL EVALUATION

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

JUL 12 PM01:47
JUL 12 PM02:00

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In Reply Refer To:
81420-2010-I-0088-02

JUL 0 8 2010

Memorandum

To: Douglas R. Pomeroy, Federal Aviation Administration, Western-Pacific Region Airports Division, San Francisco Airports District Office, Burlingame, California

From: Assistant Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Request for Concurrence with a Determination of Not Likely to Adversely Affect under the Endangered Species Act for the Proposed Improvements at the Fresno Yosemite International Airport Project, Fresno County, California

This memorandum is in response to your June 11, 2010 letter addressed to our office which provided additional information on the proposed Improvements at the Fresno Yosemite International Airport Project (Project). The memorandum also included a request for the U.S. Fish and Wildlife Service (Service) to concur with the Federal Aviation Administration's (FAA) determination that the proposed Project may affect, but is not likely to adversely affect federally-listed species. The additional information was a June 1, 2010 *Supplemental Biological Investigation Report* (Report) prepared by URS and copies of email correspondence between Erin Hanlon of the U.S. Army Corps, URS staff, and staff from the City of Fresno Airports.

Upon review of the additional information, we concur with your determination that the proposed project may affect, but is not likely to adversely affect the federally-listed as threatened California tiger salamander (*Ambystoma californiense*), the federally-listed as threatened vernal pool fairy shrimp (*Branchinecta lynchi)*, the federally-listed as threatened vernal pool tadpole shrimp (*Lepidurus packardi*), and the federally-listed as endangered San Joaquin kit fox (*Vulpes macrotis mutica*) (kit fox). Our comments are submitted pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The proposed Project is located east of State Highway 41 and north of State Highway 180 in the City of Fresno, Fresno County, California. The detailed description of the proposed Project activities was outlined in the earlier correspondence dated October 23, 2009 and November 9, 2009.

The Service has reviewed the additional information and this concurrence is specific to the Project Area only. Should the work descriptions change, we request that these changes be submitted to our office for further review.

TAKE PRIDE IN AMERICA

This concludes the Service's review of the Fresno Yosemite International Airport Project and no further coordination with the Service under the Act is necessary at this time. Please note however that this letter does not authorize take of the kit fox or any federally-listed species. As provided in 50 CFR Sec. 402.14, initiation of formal consultation is required where there is discretionary Federal involvement or control over the action (or is authorized by law) and if: (1) new information reveals the effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this review; (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (3) a new species is listed or critical habitat designated that may be affected by the action.

We appreciate your efforts to protect the listed species. Please contact either Ms. Kellie Berry or the Acting San Joaquin Valley Branch Chief at (916) 414-6630 should you have any questions regarding this response. Thank you.

cc: CDFG, Fresno, California (Attn: Lisa Gymer)
City of Fresno Airports, Fresno (Attn: Kevin Meikle)

U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

San Francisco Airports District Office
831 Mitten Road, Room 210
Burlingame, CA 94010

June 11, 2010

Ms. Susan Jones
Chief, San Joaquin Valley Branch
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

Subject: Response to U.S. Fish and Wildlife Service November 9, 2009 letter (81420-2010-I-0088-01) Requesting Additional Information Regarding the Review of the Environmental Assessment/Environmental Impact Report for Improvements at Fresno-Yosemite International Airport and Concurrence with FAA Endangered Species Act, Section 7, Determination That Project, May Affect, But Not Likely to Adversely Affect, Listed Species

Dear Ms. Jones:

By letter of October 23, 2009 (Enclosure 1), the Federal Aviation Administration (FAA) requested the U.S. Fish and Wildlife Service (Service) concur with the FAA's determination that the short-term projects in the Fresno-Yosemite International Airport EA/EIR may affect, but are not likely to adversely affect, any federally listed threatened or endangered species, and would not adversely affect any designated critical habitat. The Service responded in November 2009 that additional information was required before the Service could determine whether it did or did not concur with the FAA's determination.

The City of Fresno, the project sponsor for the proposed improvements, has developed the additional information requested by the Service in November 2009. This additional information along with the Service's November 9, 2009 letter, is included as Enclosure 2.

Please refer to Enclosure 1 for additional details regarding the proposed project. The FAA again requests the USFWS, in accordance with 50 CFR 402.12(j), concur with the determination that the short-term projects in the EA/EIR may affect, but are not likely to adversely affect, any federally listed threatened or endangered species, and would not adversely affect any designated critical habitat. We request that you provide this determination by July 16, 2010, which based on our letter transmittal date and your anticipated receipt date for this letter, should be the end of the 30 day period identified in 50 CFR 402.12(j).

If the USFWS does not concur with the FAA's determination under the ESA regarding the EA/EIR, and believes a formal ESA Section 7 consultation is required, please consider this submittal as a request to initiate the 135 day formal consultation/biological opinion period described in your ESA, Section 7, regulations.

I am the FAA point-of-contact for this project, and I can be reached at 650-876-2778, ext 612, or e-mail Douglas.Pomeroy@faa.gov.

Sincerely,

original signed by

Douglas R. Pomeroy
FAA Environmental Protection Specialist/Biologist

Enclosure (1): FAA letter of October 23, 2009
Enclosure (2): City of Fresno Supplemental Biological Investigation and U.S. Fish and Wildlife Service November 9, 2009 letter.

cc: K. Meikle, Airports Planning Manager, City of Fresno, Department of Airports, 4995 East Clinton Way, Fresno, CA 93727 w/o encl

June 2, 2010

Mr. Douglas Pomeroy
Environmental Protection Specialist
Federal Aviation Administration
San Francisco Airports District Office
831 Mitten Road, Rm 210
Burlingame, CA 94010

Re: Supplemental Biological Investigation of Proposed Improvements for Fresno Yosemite International Airport Project

Dear Mr. Pomeroy:

Attached is the Supplemental Biological Investigation Report prepared in response to the November 9, 2009, comment letter received from the United States Department of the Interior, Fish and Wildlife Service, Sacramento Fish and Wildlife Office. The letter specifically requested an updated CNDDB records search for the DSA and the GSA, and a current species reconnaissance survey, including an assessment of the proposed detention basin location for kit fox prey and potential use of the site. For your convenience, I have also attached a copy of the Fish and Wildlife Service, comment letter dated November 9, 2009.

The Supplemental Biological Investigation Report dated June 1, 2010, is prepared by URS. This report outlines the investigation and reconnaissance survey performed by URS biologists. Please review the attached report and if satisfied, kindly forward it for review to the Fish and Wildlife Service, Sacramento Office for review and approval.

Please let me know if you have any questions. If you require additional information please contact me at (559) 621-4525 or at Meenakshi.Singh@fresno.gov

Sincerely,

Meenakshi Singh
Airports Project Manager

Enclosures (2)

Supplemental Biological Investigation dated June 1, 2010
Fish and Wildlife Service letter dated November 9, 2009

cc: Kevin Meikle, Airports Planning Manager

Projects File

URS

Date: June 1, 2010

To: Kevin Meikle, Airports Planning Manager, Meenakshi Singh, Airports Project Manager, Airports Department, City of Fresno

From: David Young, Heidi Dunbar, Alana Callagy, David Reel, URS

Re: Supplemental Biological Investigations of Proposed Improvements for Fresno Yosemite International Airport Project

On March 31, 2010 a field survey was performed by URS biologists, David Young and Heidi Dunbar in order to respond to a November 9, 2009 comment letter from the Fish and Wildlife Service (FWS) regarding the Draft Environmental Assessment/Environmental Impact Report (Draft EA/EIR) (October 2009) on the proposed project improvements for Fresno Yosemite International Airport (FAT), including a potential off-site detention basin. FWS' letter requested an updated California Department of Fish and Game California Native Diversity Database (CNDDB) search to identify any potential new sightings or listings of special-status species in the project area and vicinity. The letter also requested an assessment at the potential detention basin site to determine the potential for occurrence of San Joaquin kit fox (*Vulpes macrotis mutica*), including the presence of prey and potential for San Joaquin kit fox use.

The FAA EA and Endangered Species Act, Section 7, consultation are for the improvements identified in the EA that are expected to occur in the next five years (i.e. 2009 to 2014). The EIR also considers a programmatic-level impact analysis for the 2015 to 2025 projects.

This supplemental biological investigation was conducted to verify that current environmental conditions in the vicinity of the Improvement Project areas has not changed from the previous Biological Assessment (Appendix H of the Draft EA/EIR) conducted in October 2008 and that no other biological impacts would result due to proposed projects.

The investigation followed standard site reconnaissance methods including a pedestrian survey of the Improvement Project areas. The survey consisted of URS biologists driving or walking the length of the project site, recording general habitat features, and identifying areas requiring further study. The survey was performed to determine if current conditions remain consistent with those identified in the FAT Draft EA/EIR.

***Fresno Yosemite International Airport Proposed Project Area*:**
Based on the site visit, current environmental conditions do not differ from descriptions presented in the Draft EA/EIR. A database list of special-status species was obtained from the CNDDB on April 7, 2010 and is shown below. The search identified two additional species with potential to occur in the search area. The search area included USGS Quadrangles for Sanger, Malaga, Fresno South, Academy, Friant, Clovis, Round Mountain, Lanes Bridge, and Fresno North. The two additional species that were not previously discussed in the Draft EA/EIR have been added to the list and are discussed below.

Pallid bat (*Antrozous pallidus*) and California satintail (*Imperata brevifolia*) were not previously identified in the Draft EA/EIR. California satintail (identified by the California Native Plant Society (CNPS) as plant species that is seriously threatened in California (high degree/immediacy of threat) but more common elsewhere). No California satintail have been noted at the site and it is considered not likely to occur. Pallid bat is considered a species of special concern by CDFG; however, no habitat is present and the species is not likely to occur.

Special-Status Species Potentially Occurring in the Vicinity (CDFG, 2010)[1]

Scientific Name COMMON NAME	Status[2] (Federal/State)	CNPS[3]	Other Status[4]	Preferred Habitat	Potential to occur in the Project Area
Mammals					
Dipodomys nitratoides exillis FRESNO KANGAROO RAT	FE/SE	N/A	-	Alkali sink and open grassland habitats in western Fresno county. Uses bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds above seasonal flood level for burrows	Not likely to occur; no habitat present
Vulpes macrotis mutica SAN JOAQUIN KIT FOX	FE/ST	N/A	-	Annual grassland or grassy open stages with scattered shrubby vegetation, need loose-textured sandy soils for burrowing, and suitable prey base	Not likely to occur; extirpated from project area
Taxidea taxus AMERICAN BADGER	None	N/A	SSC	Grasslands, prairies, deserts	Not likely to occur; no habitat present
Eumops perotis californicus WESTERN MASTIF BAT	None	N/A	SSC	Open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, grasslands and urban areas	Not likely to occur; no habitat present
Euderma maculatum SPOTTED BAT	None	N/A	SSC	Arid deserts, grasslands and mixed conifer forest	Not likely to occur; no habitat present
Antrozous pallidus PALLID BAT	None	N/A	SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting	Not likely to occur; no habitat present
Birds					
Agelaius tricolor (nesting colony) TRICOLORED BLACKBIRD	None	N/A	SSC	Nests next to open water where there is extensive emergent vegetation, blackberry or wild rose bushes; frequently forages in grainfields	Not likely to occur; no habitat present

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Scientific Name COMMON NAME	Status[2] (Federal/State)	CNPS[3]	Other Status[4]	Preferred Habitat	Potential to occur in the Project Area
Athene cunicularia hypugea WESTERN BURROWING OWL	None	N/A	SSC	Nests and winters in grassland and sparse shrubland habitats throughout California; uses abandoned burrows of burrowing mammals for shelter and nest sites	Known to occur in recent years, some potential to occur in the project area
Coccyzus americanus occidentalis WESTERN YELLOW-BILLED CUCKOO	FC/SE	N/A	-	Dense willow and cottonwood stands in river floodplains	Not likely to occur; no habitat present
Amphibians and Reptiles					
Actinemys (=*Clemmys*) *marmorata* WESTERN POND TURTLE	None	N/A	SSC/ Protected	Ponds, marshes, rivers, streams, irrigation ditches, need basking sites such as partially submerged logs or rocks, and suitable upland habit (sandy banks or grassy open fields) for egg laying	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Ambystoma californiense CALIFORNIA TIGER SALAMANDER	FT/SC	N/A	SSC	Annual grasslands and grassy understory of valley-foothill hardwood habitats, need underground refuges during dry season, need vernal pools or other seasonal water sources for breeding	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Spea hammondii WESTERN SPADEFOOT	None	N/A	SSC	Grassland and valley-foothill hardwood woodlands, vernal pools or seasonal wetlands are essential for egg laying	Not likely to occur; no habitat present
Fish					
Mylopharodon conocephalus *HARDHEAD*	None	N/A	SSC	Sacramento-San Joaquin river system and the Russian River system	Not likely to occur; no habitat present
Fish					
Mylopharodon conocephalus *HARDHEAD*	None	N/A	SSC	Sacramento-San Joaquin river system and the Russian River system	Not likely to occur; no habitat present
Invertebrates					
Branchinecta lynchi VERNAL POOL FAIRY SHRIMP	FT/-	N/A	-	Vernal pools, small, clearwater sandstone depression pools and grassed swale, earth slump, or basalt-flow depression pools	Not likely to occur; no habitat present
Desmocerus californicus dimorphus VALLEY ELDERBERRY LONGHORN BEETLE	FT/-	N/A	-	Elderberry shrubs	Not likely to occur; no habitat present

URS

Scientific Name COMMON NAME	Status[2] (Federal/State)	CNPS[3]	Other Status[4]	Preferred Habitat	Potential to occur in the Project Area
Plants					
Orcuttia pilosa HAIRY ORCUTT GRASS	FE/SE	1B.1	-	Vernal pools, endemic to the Sacramento Valley	Not likely to occur; no habitat present
Orcuttia inaequalis SAN JOAQUIN VALLEY ORCUTT GRASS	FT/SE	1B.1	-	Vernal pools	Not likely to occur; no habitat present
Castilleja campestris ssp. succulenta SUCCULENT OWL'S CLOVER	FT/SE	1B.2	-	Vernal pools and moist places, often in acidic soils, in valley and foothill grasslands	Not likely to occur; no habitat present
Pseudobahia bahiifolia HARTWEG'S GOLDEN SUNBURST	FE/SE	1B.1	-	Cismontane woodlands and valley foothill grasslands with clay soils	Not likely to occur; no habitat present
Pseudobahia peirsonii SAN JOAQUIN ADOBE SUNBURST	FT/SE	1B.1	-	Cismontane woodlands and valley foothill grasslands with adobe soils.	Not likely to occur; no habitat present
Eryngium spinosepalum SPINY-SEPALED BUTTON-CELERY	None	1B.2	-	Valley and foothill grasslands, vernal pools	Not likely to occur; no habitat present
Caulanthus californicus CALIFORNIA JEWEL-FLOWER	FE/SE	1B.1	-	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland, sandy soils	Not likely to occur; no habitat present
Tuctoria greenei GREENE'S TUCTORIA	FE/SR	1B.1	-	Vernal pools	Not likely to occur; no habitat present
Leptosiphon serrulatus MADERA LEPTOSIPHON	None	1B.2	-	Cismontane woodland, lower montane coniferous forest	Not likely to occur; no habitat present
Sagittaria sanfordii SANFORD'S ARROWHEAD	None	1B.2	-	Shallow freshwater marshes and swamps	Not likely to occur; no habitat present
Tropidocarpum capparideum CAPER-FRUITED TROPIDOCARPUM	None	1B.1	-	Valley and foothill grassland	Not likely to occur; no habitat present
Imperata brevifolia CALIFORNIA SATINTAIL	None	2.1	-	Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps often alkali soils and mesic riparian scrub	Not likely to occur; no habitat present
Downingia pusilla DWARF DOWNINGIA	None	2.2	-	Valley and foothill grasslands, vernal pools	Not likely to occur; no habitat present

Note:
[1] Table only includes those species with federal, state, or other list status as identified in the CNDDB.
[2] Federal and State Status

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
SE	State Endangered
ST	State Threatened
SR	State Rare
SC	State Candidate

[3] California Native Plant Society (CNPS)

1A	Plant species that are presumed extinct in California
1B	Plant species that are rare, threatened, or endangered in California and elsewhere
2	Plant species that are rare, threatened, or endangered in California but more common elsewhere
3	Plant species about which we need more information (a review list)
4	Plant species of limited distribution (a watch list).

Threat Ranks
0.1-Seriously threatened in California (high degree/immediacy of threat)
0.2-Fairly threatened in California (moderate degree/immediacy of threat)
0.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)

[4] Other Status
SSC – California Department of Fish and Game Species of Special Concern
Protected and Fully Protected – Species which cannot be taken or possessed without a permit from the Fish and Game Commission and/or Department of Fish and Game

The Draft EA/EIR described land coverage in the project area as:

- Airport-Urban Developed
- Non-native Herbaceous Field
- Seasonally Inundated Drainage
- Seasonally Ponded Swales
- Seasonally Ponded Depressions
- Artificial Ponds

The majority of the project area is Airport-Urban Developed and includes existing roads and asphalt runways/taxiways. Previously identified seasonal ponded swales were revisited and reviewed during the site visit on March 31, 2010. In 2006 two seasonal ponded swales were identified adjacent to the Improvements Project area just north of Runway 11L (shown in Draft EA/EIR Figure 5.12-1). The seasonal ponded swales were defined as shallow, trough-like depressions that carry water or become ponded during rainstorms. These swales differ from ponded depressions in that they are linear features. The seasonal ponded swales were identified as non-jurisdictional waters of the U.S. because the features are isolated and do not have hydrological connectivity to other waters.

Ponding at FAT changes on an annual basis due to regular maintenance and the use of large equipment and air craft. Photo documentation has been included in this memo to show the changes to areas previously identified as having ponding. On March 26, 2008 and March 31, 2010 site visits to the locations of the previously identified seasonal ponded swales found no ponding. The 2010 site visit was conducted after a morning rain. Photo 1, below, shows a photo of the northern most ponded swale. Photo 1 was taken during the January 13, 2006 wetland delineation site visit. Precipitation had occurred ten days prior to the site visit on January 13, 2006. Photo 2, below, shows the

site of previous seasonal ponding in March 26, 2008. Photo 3, below, is taken slightly farther west than the vantage point for Photos 1 and 2 but the same security fencing and buildings are visible. In Photo 1 ponding is visible while Photos 2 and 3 show no ponding. The more southern area previously identified as a seasonal ponded swale is shown in Photos 4 through 6. Ponding was observed at this feature in 2006 but was absent in 2008 and 2010.

Photo 1. Photo taken during the January 13, 2006 wetland delineation site visit.

Photo 2. Photo taken March 26, 2008.

Photo 3. Photo taken March 31, 2010.

Photo 4. Photo taken during the January 13, 2006 wetland delineation site visit.

Photo 5. Photo taken March 26, 2008 shows no ponding.

Photo 6. Photo taken March 31, 2010 shows no ponding. The view is to the northwest with Runway 11L shown on the left. (Views shown in Photos 4 and 5 are to the north; however the same feature is captured in Photos 4 through 6.)

***Potential Detention Basin*:**

The potential detention basin site is located southeast of FAT. The site is bordered by Armstrong Avenue to the west, an irrigation canal (Mill Creek) to the north, and fields with irrigated field crops to the south and east. The site is developed and maintained for agriculture and appeared to have been recently tilled. The site was fallow and due to recent rains contains a growth of ruderal or weedy vegetation.

Photo7. The picture shows the potential detention basin site and the gravel/dirt road which runs adjacent to the northern and western boundaries of the site.

Photo 8. The picture shows the irrigation canal, Mill Creek, which is the northern border of the potential detention basin site.

Photo 9. The picture was taken at the south end of the potential detention basin site, showing the existing dirt road which separates the agricultural field crops.

There were a small number of burrows on the site that are most likely utilized by *Microtus sp*. California ground squirrel, or other small mammals; activity of the burrows is not known. No animals were observed during the site visit.

Photo 10. The picture shows the largest burrow found on potential detention basin site. The burrow has a diameter of less than three inches.

Based on the field visit of FAT and survey of the potential detention basin site, it is highly unlikely that San Joaquin kit fox occur in the area. The site is enclosed by rural residential and agricultural land which does not provide suitable habitat for the San Joaquin kit fox. Habitat for the San Joaquin kit fox includes saltbush scrub, grasslands, and alkali sink (Cypher et al, 2007). Although agricultural areas are not traditional San Joaquin kit fox habitat and are often highly fragmented, they can offer sufficient small mammal prey base. However, the site in not located within a known range or movement corridor for San Joaquin kit fox. The Recovery Plan for Upland Species (USFWS, 1998) has identified three core populations of San Joaquin kit fox:

1. Carrizo Plain Natural Area in San Luis Obispo County;
2. Natural Lands of western Kern County (i.e., Elk Hills, Buena Vista Hill and the Buena Vista Valley, Lokern Natural Area and adjacent natural land); and
3. The Ciervo-Panoche Natural Area of western Fresno and eastern San Benito counties.

The project site is located in southeast Fresno, well outside the current known range of San Joaquin kit fox. There are no CNDDB sightings of San Joaquin kit fox within a five-mile radius of the project area. Typically, San Joaquin kit foxes occupy home ranges that vary in size from 1.7 to 4.5 square miles (White and Ralls, 1993), and Knapp (1978) estimated that a home range in agricultural areas is approximately 1 square mile. Therefore, it would be highly unlikely for a San Joaquin kit fox to be found on the site.

Additionally, there were no signs of canid species tracks, scat, small mammal remains, known dens, atypical dens, or potential dens at FAT or the potential detention basin.

Conclusion

The findings stated in the October 2009 Draft EA/EIR are still valid regarding biological resources. There are no special-status, threatened, or endangered species that would be significantly impacted by the proposed project.

The findings stated in the October 2009 Draft EA/EIR are still valid regarding wetlands. There are no wetlands present in the proposed project area; current drainage at FAT is adequate, and there appears to be less seasonal ponding than previously identified in the Draft EA/EIR. Additionally, since publication of the Draft EA/EIR a best management practice (BMP) has been added to the project to further insure that the seasonally ponded swales are not impacted. The BMP states:

> Protective barrier construction fencing shall be placed around the seasonally inundated/ponded areas to serve as a no-disturbance buffer during the rehabilitation of the north Service Road (shown in Figure 5.12-1) for the duration of the project.

This language would be added to the Final EA/EIR and the BMP would become a component of the project. By e-mail of May 26, 2010, Erin Hanlon, Regulatory Project Manager of the Regulatory Division of the Sacramento District of the U.S. Army Corps

of Engineers, concurred with the above language and confirmed that the project would not require a 404 permit (Attachment 1).

Citations

California Department of Fish and Game (CDFG), 2010. USGS Quadrangles Sanger, Malaga, Fresno South, Academy, Friant, Clovis, Round Mountain, Lanes Bridge, and Fresno North. April 7, 2010.

Cypher, B.L., Phillips, S.E., and P.A. Kelly. 2007. Habitat Suitability and Potential Corridors for San Joaquin Kit Fox in the San Luis Unit, Fresno, Kings, and Merced Counties, California. 23 pp.

Knapp, D.K. 1979. Effects of agricultural development in Kern County, California, on the San Joaquin kit fox. In 1977 Final Report, Project E-1-1, Job V-1.21, Non-game Wildlife Investigations, California Department of Fish and Game, Sacramento, California, 48 pages.

Ralls, K., and P.J. White. 1995. Predation on endangered San Joaquin kit foxes by larger canids. J. Mammalogy 276:723-729.

U.S. Fish and Wildlife Service. 1998. Recovery Plan for Upland Species of the San Joaquin Valley, California. U. S. Fish and Wildlife Service, Portland, Oregon.

Staff Qualifications

Heidi Dunbar, BS Biology, two years of experience

David Young, MA Biology, BA Zoology, thirty years of experience

Alana Callagy, BS Forestry and Natural Resources, six years of experience

David Reel, Master of Urban Planning, Master of Architecture, BS Architecture, twenty-two years of experience

Attachment 1

Hanlon, Erin. Army Corps of Engineers, Sacramento District, Regulatory Division, Email of May 26, 2010.

Attachment 1

URS

Meenakshi Singh <Meenakshi.Singh@fresno.gov>

Meenakshi Singh
<Meenakshi.Singh@fresno.gov>
05/26/2010 11:51 AM

To "Hanlon, Erin M SPK" <Erin.M.Hanlon@usace.army.mil>, "Alana_Callagy@URSCorp.com" <Alana_Callagy@URSCorp.com>
cc "David_Reel@URSCorp.com" <David_Reel@URSCorp.com>, Kevin Meikle <Kevin.Meikle@fresno.gov>
Subject RE: Fresno Airport Draft EA/EIR - Mitigation Measure

Erin,

Thank you for your response, we will include this language as a BMP in the final environmental document. Also, as soon as the final document is ready, a copy will be mailed to you.

Best Regards,

Meenakshi
Meenakshi Singh, M.RCPL, B.Arch.
Airports Project Manager
City of Fresno-Airports
Phone: 559-621-4525
Fax: 559-251-4825

-----Original Message-----
From: Hanlon, Erin M SPK [mailto:Erin.M.Hanlon@usace.army.mil]
Sent: Wednesday, May 26, 2010 11:42 AM
To: Alana_Callagy@URSCorp.com
Cc: David_Reel@URSCorp.com; Kevin Meikle; Meenakshi Singh
Subject: RE: Fresno Airport Draft EA/EIR - Mitigation Measure

Alana,
Yes, this language is acceptable. Is there anything else you need from me besides my concurrence?
Erin

Erin M. Hanlon
Regulatory Project Manager, Regulatory Division U.S. Army Corps of Engineers, Sacramento District,
1325 J Street, Room 1480
Sacramento, CA 95814-2922
(916) 557-7759
(Fax) 557-6877
erin.m.hanlon@usace.army.mil

-----Original Message-----
From: Alana_Callagy@URSCorp.com [mailto:Alana_Callagy@URSCorp.com]

Sent: Tuesday, May 25, 2010 3:45 PM
To: Hanlon, Erin M SPK
Cc: David_Reel@URSCorp.com; Kevin.Meikle@fresno.gov; Meenakshi.Singh@fresno.gov
Subject: Re: Fresno Airport Draft EA/EIR - Mitigation Measure

Erin,

We wanted to give you update. A decision has been made to include use of the protective barrier construction fencing as a best management practice (BMP) and, therefore, a component of the project and not a mitigation measure. The BMP language would be consistent with what was previous sent by David Reel and would state,

"Protective barrier construction fencing would be placed around the seasonally inundated/ponded areas to serve as a no-disturbance buffer during the rehabilitation of the north Service Road (shown in Figure 5.12-1) for the duration of project construction."

At this time is there any more information you need from us that can help move along the process? We are hoping to resolve this piece and wrap up work on the final document.

Regards,

Alana Callagy, LEED AP
Environmental Planner

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David Reel/SanFrancisco/URSCorp

05/17/2010 10:00 AM

To

David Reel/SanFrancisco/URSCorp

cc

Alana Callagy/SanFrancisco/URSCorp, Douglas.Pomeroy@faa.gov, "Hanlon, Erin M SPK" <Erin.M.Hanlon@usace.army.mil>, Kevin.Meikle@fresno.gov, Meenakshi.Singh@fresno.gov

Subject

Re: Fresno Airport Draft EA/EIR - Mitigation Measure

Erin: Just wanted to check on you input regarding this mitigation measure. We are trying to wrap up the final document in the next 2 weeks.
Thanks

****

David Reel, Vice President
Manager of Planning and Environmental Services
****

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David Reel/SanFrancisco/URSCorp

05/04/2010 04:43 PM

To

"Hanlon, Erin M SPK" <Erin.M.Hanlon@usace.army.mil>

cc

Meenakshi.Singh@fresno.gov, Alana Callagy/SanFrancisco/URSCorp, Kevin.Meikle@fresno.gov, Douglas.Pomeroy@faa.gov

Subject

Fresno Airport Draft EA/EIR - Mitigation Measure

Erin, thanks for discussing the Fresno International Airport Improvements Draft EA/EIR last week on April 26, 2010 regarding the wetland section. As discussed on the phone we have drafted the following mitigation measure to include in the Final EA/EIR to address the seasonally ponded areas in question. While these areas appear to change and shift on an annual basis we feel this measure will ensure precaution and protection if a resource is present. It is our understanding that if we include this measure in the document we would meet the CWA requirements and no permit or additional requirements would be needed from USACE. Please provide any comments or edits to this measure so that it meets your satisfaction to complete the environmental process. URS is working with the City of Frenso and FAA to complete the EA-EIR so that the proposed projects can be considered for funding.

Mitigation Measure W-A: Place construction fencing around seasonally ponded areas.
Protective barrier construction fencing shall be placed around identified seasonally inundated/ponded areas to serve as a no-disturbance buffer during the rehabilitation of the north Service Road as depicted in Figure 5.12-1 for the duration of the project. This measure does not preclude the need for nor replace other erosion control best management practices (BMP’s) or MM G-B: Prepare and implement a grading/erosion control plan.

Thank you for your time and attention to this project.
Sincerely
****
David Reel, URS Corporation, Vice President Manager of Planning and Environmental Services
****

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"Hanlon, Erin M SPK"
<Erin.M.Hanlon@usace.army.mil>

04/27/2010 02:14 PM

To

<David_Reel@URSCorp.com>

cc

Subject

RE: Excerpts from Fresno Airport Draft EA/EIR

Anytime today, tomorrow, or Thursday is fine to call.

Erin M. Hanlon
Regulatory Project Manager, Regulatory Division U.S. Army Corps of Engineers, Sacramento District,
1325 J Street, Room 1480
Sacramento, CA 95814-2922
(916) 557-7759
(Fax) 557-6877
erin.m.hanlon@usace.army.mil

-----Original Message-----
From: David_Reel@URSCorp.com [mailto:David_Reel@URSCorp.com]
Sent: Tuesday, April 27, 2010 2:11 PM
To: Hanlon, Erin M SPK
Cc: Meenakshi.Singh@fresno.gov; Alana_Callagy@URSCorp.com; Rosemary_Laird@URSCorp.com
Subject: RE: Excerpts from Fresno Airport Draft EA/EIR

Erin: thanks for taking the time out to talk with us yesterday and clear up your concerns about FAT. We are attaching two figures that convey the storm drainage.

(See attached file: SDMP REPORT Fig 1.pdf)(See attached file: Master Drainage Plan.pdf)

To provide clarity, we realized that Figure 15.12-1 may appear confusing because the seasonal ponded swales may appear to be on the pavement. As indicted in Figure 1 in the memo we provided to you on April 19, 2010 those areas were adjacent to the paved areas. We will be fixiing that map for the Final EA-EIR because the disturbance will primarily be directly on top of the existing pavement with additional 1 foot of gravel adjacent to grade from the edge of pavement tot the ground. Sorry for the confusion.

There has not been a formal delineation that has been submitted to USACE for the FAT in the past.

One of our biologists that went out to the site a couple of times, Rosemary Laird, is available to discuss why test pits were not taken at the areas that are adjacent to the developed area of the runway/taxiway. We are prepared to have a call at your convenience in the next couple of days. Just let us know a good time and we will call you. Thanks for you continued coordination. We would like to wrap up this report soon.

Regards,

****
David Reel, Vice President
Manager of Planning and Environmental Services
221 Main Street, Suite 600
San Francisco, CA 94105-1917
415-243-3743 (direct)
415-882-9261 (fax)
415-250-5767 (cell)
****

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"Hanlon, Erin M SPK"
<Erin.M.Hanlon@usace.army.mil>

04/22/2010 11:41 AM

To

<David_Reel@URSCorp.com>

Subject

RE: Excerpts from Fresno Airport Draft EA/EIR

David,
Was the 2006 wetland delineation mentioned in the draft EA-EIR ever verified by the Corps?
Is there a storm water drainage map so that I could see how water drains off the site? Where does the storm water go? Into a drainage basin but then into the city sewers or into a creek?
Thanks,
Erin

Erin M. Hanlon
Regulatory Project Manager, Regulatory Division U.S. Army Corps of Engineers, Sacramento District,
1325 J Street, Room 1480

Sacramento, CA 95814-2922
(916) 557-7759
(Fax) 557-6877
erin.m.hanlon@usace.army.mil

-----Original Message-----
From: David_Reel@URSCorp.com [mailto:David_Reel@URSCorp.com]
Sent: Tuesday, April 20, 2010 4:32 PM
To: Hanlon, Erin M SPK
Cc: Alana_Callagy@URSCorp.com; Kevin.Meikle@fresno.gov;
Meenakshi.Singh@fresno.gov
Subject: RE: Excerpts from Fresno Airport Draft EA/EIR

Here is additional information that we put together to better explain the seasonal areas, including some photos taken through the years that shows the conditions have changed on annual basis. We did not do test pits at these area but do have data sheets from test pits taken at another location that we have included here. Hopefully this provides enough information for clarity Regards,

(See attached file: FAT Seasonal Ponded Swale Memo 2010 04 19.pdf)
****
David Reel, Vice President
Manager of Planning and Environmental Services
****

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"Hanlon, Erin M SPK"
<Erin.M.Hanlon@usace.army.mil>

04/14/2010 03:25 PM

To

<David_Reel@URSCorp.com>

cc

<Alana_Callagy@URSCorp.com>, <Kevin.Meikle@fresno.gov>,
<Meenakshi.Singh@fresno.gov>

Subject

RE: Excerpts from Fresno Airport Draft EA/EIR

David,
The report said that a wetland delineation was done. Were any wetland delineation data sheets filled out for those swales? I'd like to see what the soils and plants are, if I could.
Erin

-----Original Message-----
From: David_Reel@URSCorp.com [mailto:David_Reel@URSCorp.com]
Sent: Wednesday, April 14, 2010 3:23 PM
To: Hanlon, Erin M SPK
Cc: Alana_Callagy@URSCorp.com; Kevin.Meikle@fresno.gov;
Meenakshi.Singh@fresno.gov
Subject: RE: Excerpts from Fresno Airport Draft EA/EIR

Erin: thanks for the quick response, we will send over some additional information to provide further clarity. Those areas are not directly in the proposed project footprint, but adjacent to them which is hard to tell from the figure. Since those surveys were done some time ago we have recent pictures that show the conditions have changed at those locations and ponding is not present.
Regards,
****
David Reel, Vice President
Manager of Planning and Environmental Services
****

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"Hanlon, Erin M SPK"
<Erin.M.Hanlon@usace.army.mil>

04/14/2010 02:03 PM

To

<David_Reel@URSCorp.com>

cc

<Meenakshi.Singh@fresno.gov>, <Kevin.Meikle@fresno.gov>,
<Alana_Callagy@URSCorp.com>

Subject

RE: Excerpts from Fresno Airport Draft EA/EIR

David,
I read through the report and must draw your attention to Figure 5.12-1. That figure maps out two seasonally ponded swales. The last paragraph on page 5-87 states that the "seasonally inundated/ponded areas were surveyed in accordance with U.S. Army Corps of Engineers
(USACE) Wetlands Delineation Manual." I am going to need to see a copy of that wetland delineation before I can concur that there are no waters of the U.S. on the project site. Especially as it appears from Figure 5.12-1 that these seasonally inundated swales will be impacted by the proposed project. A jurisdictional determination will be needed for those seasonally inundated features.
Erin

Erin M. Hanlon
Regulatory Project Manager, Regulatory Division U.S. Army Corps of Engineers,
Sacramento District,
1325 J Street, Room 1480
Sacramento, CA 95814-2922
(916) 557-7759
(Fax) 557-6877
erin.m.hanlon@usace.army.mil

-----Original Message-----
From: David_Reel@URSCorp.com [mailto:David_Reel@URSCorp.com]
Sent: Tuesday, April 13, 2010 10:36 PM
To: Hanlon, Erin M SPK
Cc: Meenakshi.Singh@fresno.gov; Kevin.Meikle@fresno.gov;
Alana_Callagy@URSCorp.com
Subject: Excerpts from Fresno Airport Draft EA/EIR

Erin: thanks for taking time out to discuss the Fresno Yosemite International Airport Draft EA-EIR on the phone today. As discussed on the phone none of the proposed projects are anticipated to impact any seasonally ponded areas on the airport. Attached is an Executive Summary of the Draft EA-EIR along with excerpted sections from biology and wetlands sections of the document. We will send a CD copy of the entire document to your attention by mail. It is our understanding that since due to the fact that there are no project impacts delineation information will be required to submit to USACE for concurrence. We would appreciate an email confirming your agreement with this understanding.

Regards,

****
David Reel, Vice President
Manager of Planning and Environmental Services
****

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URS

Date: April 19, 2010

To: Erin Hanlon, U.S. Army Corps of Engineers

From: Kevin Meikle, Meenakshi Singh, City of Fresno-Airports
David Reel, Alana Callagy, Rosemary Laird, URS

Re: Seasonal Ponded Swales at Fresno Yosemite International Airport

This memo provides additional documentation regarding seasonal ponding at the Fresno Yosemite International Airport (FAT). As stated during the phone discussion on April 14, 2010, the proposed Airport Improvements Project identified in the 2009 Draft Environmental Assessment/Environmental Impact Report (Draft EA/EIR) is not anticipated to impact any seasonally ponded areas at FAT.

In 2006 two seasonal ponded swales were identified adjacent to the Improvements Project area just north of Runway 11L (shown in Draft EA/EIR Figure 5.12-1 and as Features 4 and 7 on Figure 1). The seasonal ponded swales were defined as shallow, trough-like depressions that carry water or become ponded during rainstorms. These swales differ from ponded depressions in that they are linear features. The seasonal ponded swales were identified as non-jurisdictional waters of the U.S. because the features are isolated and do not have hydrological connectivity to other waters. No soil test pits were dug for these sites; however, Feature 21, which was also identified in 2006, is a 0.041 acre seasonal ponded swale south of Runway 29R that has water pumped to Mill Ditch, and was delineated in 2006 as jurisdictional because of hydrological connectivity to the ditch. The seasonal ponded swale south of Runway 29R is not in the Improvements Project area but exhibits characteristics similar to Features 4 and 7. The soils and lack of vegetation associated with Feature 21 are considered representative of seasonal ponded swales at FAT. Seasonal ponded swales may change on an annual basis. The attached Routine Wetland Delineation sheets from 2006 for soil test pit locations identified as C1 and C2 are from the seasonal ponded swale located south of Runway 29L (Feature 21).

Ponding at FAT changes on an annual basis due to regular maintenance and the use of large equipment and air craft. Photo documentation has been included in this memo to show the changes to areas with ponding. On March 26, 2008 and March 31, 2010 site visits to the locations of the previously identified seasonal ponded swales found no ponding. The 2010 site visit was conducted after a morning rain. Photo 1, below, shows a photo of Feature 4 taken during the January 13, 2006 wetland delineation site visit. Precipitation had occurred ten days prior to the site visit on January 13, 2006. Photo 2, below, shows the site of previous seasonal ponding in March 26, 2008. Photo 3, below, is taken slightly farther west than the vantage point for Photos 1 and 2 but the same security fencing and buildings are visible. In Photo 1 ponding is visible while Photos 2 and 3 show no ponding.

Feature 7 is shown in Photos 4 through 6. Ponding was observed at this feature in 2006 but was absent in both 2008 and 2010. Photos 7 and 8 show Feature 21 and the site for Points C1 and C2 in 2006 and 2008, respectively.

Soil pit site

Seasonal ponded swale

N

400 200 0 400 800 1,200 Feet

Note: Fresno Airport aerial photo is not orthorectified

URS	Fresno Airport	Seasonal Ponded Swales	Figure 1
	28066717		

\\S021emc2\gisdata\Projects\Fresno_Airport_28066717\MXD\Current Working Documents\Fresno_Airport_Fig1_Seasonal_ponded_swales_v3.mxd

Photo 1. Feature 4, photo taken during the January 13, 2006 wetland delineation site visit.

Photo 2. Feature 4 March 26, 2008.

Photo 3. Feature 4, photo taken March 31, 2010.

Photo 4. Feature 7, photo taken during the January 13, 2006 wetland delineation site visit.

Photo 5. Feature 7, photo taken March 26, 2008 shows no ponding.

Photo 6. Feature 7, photo taken March 31, 2010 shows no ponding. The view is to the northwest with Runway 11L shown on the left. (Views shown in Photos 4 and 5 are to the north; however the same feature is captured in Photos 4 through 6.)

Photo 7. Feature 21 and site for Points C1 and C2, photo taken during the January 13, 2006 wetland delineation site visit.

Photo 8. Feature 21 and site for Points C1 and C2, photo taken during on March 26, 2008.

ROUTINE WETLAND DELINEATION SHEETS

Routine Wetland Determination

1987 Corps Wetland Delineation Manual

Project/Site:	Fresno Airport	Date:	1/13/2006
Applicant/owner:	City of Fresno	County:	Fresno
Investigator(s):	C. Lu, R. Laird	State:	CA
		S/T/R:	

Do normal circumstances exist on the site?	☐ Yes	☒ No	Community ID:
Is the site significantly disturbed (atypical situation)?	☒ Yes	☐ No	Transect ID:
Is the area a potential problem area?	☒ Yes	☐ No	Plot ID: C1

Explanation of atypical or problem area: seasonal ponding in disturbed area

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
none							

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC:

Check all indicators that apply and explain below:

- ☐ Visual observation of plant species growing in areas of prolonged inundation/saturation
- ☐ Morphological adaptations
- ☐ Technical Literature
- ☐ Physiological/reproductive adaptations
- ☐ Wetland plant database
- ☐ Personal knowledge of regional plant communities
- ☐ Other (explain)

Hydrophytic vegetation present? ☐ Yes ☒ No

Rationale for decision/Remarks:

HYDROLOGY

Is it the growing season? ☐ Yes ☒ No

Based on: ☐ Soil temp (record temp)
☐ Other (explain)

Depth of inundation: 3 inches

Depth to free water in pit: _____ inches

Depth to saturated soil: _____ inches

☐ Recorded Data (Describe in Remarks):
Check all that apply & explain below:
- ☐ Stream, lake or gage data
- ☐ Aerial photographs
- ☐ Other

☐ No Recorded Data Available

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Wetland hydrology present? ☒ **Yes** ☐ **No**

Rationale for decision/remarks: inundated

SOILS Plot ID:

Map Unit Name (Series and Phase) : Drainage Class

Field observations confirm mapped type? ☐ Yes ☐ No

Taxonomy (subgroup)

Profile Description

Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)

Hydric Soil Indicators: (check all that apply)

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma (=1) matrix
- ☐ Matrix chroma ≤ 2 with mottles
- ☐ Mg or Fe Concretions
- ☐ High Organic Content in Surface Layer of Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on National/Local Hydric Soils List
- ☐ Other (explain in remarks)

Hydric soils present? ☒ **Yes** ☐ **No**

Rationale for decision/Remarks: no soil pit dug due to inundated soils.

Wetland Determination

Hydrophytic vegetation present?	☐ **Yes**	☒ **No**
Hydric soils present?	☒ **Yes**	☐ **No**
Wetland hydrology present?	☒ **Yes**	☐ **No**
Is the sampling point within a wetland?	☐ **Yes**	☐ **No**

Rationale/Remarks: W.U.S. 10' x 240' adjacent to runway.

NOTES:

Revised 3/01

Routine Wetland Determination

1987 Corps Wetland Delineation Manual

Project/Site:	Fresno Airport	Date:	1/13/2006
Applicant/owner:	City of Fresno	County:	Fresno
Investigator(s):	C. Lu, R. Laird	State:	CA
		S/T/R:	

Do normal circumstances exist on the site?	☐ Yes	☒ No	Community ID:
Is the site significantly disturbed (atypical situation)?	☒ Yes	☐ No	Transect ID:
Is the area a potential problem area?	☒ Yes	☐ No	Plot ID: C2

Explanation of atypical or problem area: seasonal ponding in disturbed area

VEGETATION (For *strata, indicate T = tree; S = shrub; H = herb; V = vine)

Dominant Plant Species	*Stratum	% cover	Indicator	Dominant Plant Species	*Stratum	% cover	Indicator
Salsola soda	H	40	NI				
Unidentified grass	H	60	NI				

HYDROPHYTIC VEGETATION INDICATORS:

% of dominants OBL, FACW, & FAC:

Check all indicators that apply and explain below:

- ☐ Visual observation of plant species growing in areas of prolonged inundation/saturation
- ☐ Morphological adaptations
- ☐ Technical Literature
- ☐ Physiological/reproductive adaptations
- ☐ Wetland plant database
- ☐ Personal knowledge of regional plant communities
- ☐ Other (explain)

Hydrophytic vegetation present? ☐ Yes ☐ No

Rationale for decision/Remarks: plants too young to identify

HYDROLOGY

Is it the growing season? ☐ Yes ☒ No

Based on: ☐ Soil temp (record temp)
☒ Other (explain)

Depth of inundation: none inches

Depth to free water in pit: none inches

Depth to saturated soil: none inches

☐ Recorded Data (Describe in Remarks):
Check all that apply & explain below:
- ☐ Stream, lake or gage data
- ☐ Aerial photographs
- ☐ Other

☐ No Recorded Data Available

WETLAND HYDROLOGY INDICATORS

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more Required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Wetland hydrology present? ☐ **Yes** ☒ **No**

Rationale for decision/remarks:

SOILS Plot ID:

Map Unit Name (Series and Phase) : Drainage Class

Field observations confirm mapped type? ☐ Yes ☐ No

Taxonomy (subgroup)

Profile Description

Depth (inches)	Horizon	Matrix color (Munsell moist)	Mottle colors (Munsell moist)	Mottle abundance size and contrast	Texture, concretions, structure, etc.	Drawing of soil profile (match description)
10		10 YR 3/4	none		Sandy loam	

Hydric Soil Indicators: (check all that apply)

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma (=1) matrix
- ☐ Matrix chroma ≤ 2 with mottles
- ☐ Mg or Fe Concretions
- ☐ High Organic Content in Surface Layer of Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on National/Local Hydric Soils List
- ☐ Other (explain in remarks)

Hydric soils present? ☐ **Yes** ☒ **No**

Rationale for decision/Remarks:

Wetland Determination

Hydrophytic vegetation present?	☐ **Yes**	☒ **No**
Hydric soils present?	☐ **Yes**	☒ **No**
Wetland hydrology present?	☐ **Yes**	☒ **No**
Is the sampling point within a wetland?	☐ **Yes**	☒ **No**

Rationale/Remarks: point is adjacent to W.U.S.

NOTES:

Revised 3/01

BIOLOGICAL ASSESSMENT

FRESNO YOSEMITE INTERNATIONAL AIRPORT AIRPORT IMPROVEMENTS DRAFT EA/EIR

Prepared for

City of Fresno - Airports
4995 East Clinton Way
Fresno, CA 93727

October 2008

URS

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Figure 5-12-1: Potential Branchiopod Locations

1.0 SUMMARY

The purpose of this biological assessment is to evaluate the likely effect on federally listed threatened and endangered species and their designated critical habitat that could occur with implementation of the Proposed Project---the adoption and implementation of selected Airport Master Plan (AMP) projects at Fresno Yosemite International Airport (FAT)—pursuant to the Endangered Species Act of 1973.

The potential impacts to threatened and endangered species within the Detailed Study Area resulting from the alternatives studied in detail were evaluated through field observations and through the relevant literature. Implementation of the Proposed Project would not significantly alter the habitat of special-status species or riparian habitat, nor would it result in the taking of any known listed threatened or endangered species or the habitat of such species. All habitats at FAT which may provide habitat for any special-status species are closely managed by FAT. Therefore, with the mitigation of the potential significant impact to the burrowing owl, and the implementation of best management practices to avoid impacts to potential vernal pool fairy shrimp and vernal pool tadpole shrimp, the Proposed Project would not have a significant impact on any special-status, threatened, or endangered species. Additionally, habitat within the Generalized Study Area is considered to be marginal for vernal pool fairy shrimp and vernal pool tadpole shrimp. Critical habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp within the DSA is not present. Western burrowing owls have been observed in the project area in the past and the likelihood of their presence in the project area is low, but cannot be totally discounted. Construction activities could result in the conversion of some western burrowing owl nesting habitat to Airport-related development and could be a potentially significant impact. However, implementation of Mitigation Measure B-A: Conduct pre-construction burrowing owl survey, would reduce or eliminate significant impacts.

The Detailed Study Area is being managed to discourage western burrowing owls from nesting. FAT coordinates with California Department of Fish and Game (CDFG) and has a contract with Wildlife Control Technology for addressing Threatened and Endangered Species and species of concern. Habitat conditions within the Detailed Study Area are marginal for the California horned lark. The alternatives studied in detail would not remove an appreciable amount of foraging habitat for this species and disturbance from construction is not expected to impact their breeding. With the implementation of the avoidance and minimization measures no significant impacts would be anticipated.

2.0 INTRODUCTION

2.1 BACKGROUND

Fresno Yosemite International Airport (FAT) is located approximately 5 miles northeast of downtown Fresno, bordered by State Route (SR) 180 to the south and SR 168 to the east. The project vicinity and location of the FAT are depicted in **Figure 1-1**. The Airport is owned by the City of Fresno, and is a commercial service airport that provides airfield, terminal, and support facilities for scheduled commercial, air charter/taxi, military, and general aviation (GA) operations. The Proposed Project is the adoption and implementation of select Master Plan projects at FAT.

A joint Environmental Assessment/Environmental Impact Report (EA/EIR) has been prepared for this Proposed Project pursuant to requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). A public scoping meeting was held on July 21, 2005, to solicit input from governmental/regulatory agencies and to ensure that all significant issues related to the Proposed Project are identified.

The purpose of this biological assessment is to evaluate the likely effect on federally listed threatened and endangered species and their designated critical habitat that could occur with implementation of the Proposed Project at FAT pursuant to the Endangered Species Act of 1973.

2.2 PROPOSED PROJECT

The AMP was initiated in 2002 to establish goals and determine the development needs for the next 20 years at FAT. The AMP included the exploration of many planning alternatives that resulted in the selection of a preferred alternative and a phased development plan. The Proposed Project evaluates improvements at the project level according to both NEPA and CEQA regulations that are proposed for construction and operation to meet existing aviation demand from 2009 through 2014. Concurrently, the Proposed Project evaluates improvements at the program level according to CEQA regulations that are proposed for construction and operation to meet FAA TAF through 2025. The program level improvements represent potential airport improvements for CEQA purposes, with the understanding that in the future when specific data are available for these improvements, additional analyses would be performed. These improvements have been considered for the purposes of analyzing cumulative impacts under CEQA. The Proposed Project is shown on **Figures 1-2, 1-3**, and **1-4** as well as listed below.

2.2.1 2009 – 2014 Projects

The following airside and landside projects are proposed to be implemented between 2009 and 2014. These specific physical improvements allows the Airport to effectively continue its mission of serving the air transportation needs for the City of Fresno and surrounding region as forecasted. As previously stated, these projects are evaluated at the project level under NEPA and CEQA. See **Figures ES-1** and **ES-2**.

Airside Projects

- Extend length of secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet to the west;
- Widen secondary runway from 100 feet to 150 feet;
- Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B2, B4, C, C4, Hold Pad B, and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building; and
- Relocate and rehabilitate airfield service road.

Landside Projects

- Reconfigure parking area for employees; and
- Implement public parking improvements, including a permanent parking attendant structure.

Other Projects

- Acquire land and construct new off-site detention basin (21 acres); and
- Implement storm drainage improvements, including conversion of North Chestnut/East Shields Basin stormwater holding area to detention basin with pump station and infrastructure improvements associated with runway/taxiway work.

Planning Projects

- Update the Fresno County Airport Land Use Plan based on the noise contours and safety data and establish consistency with the City of Fresno updated Airport and Environs Plan, and

- City of Fresno General Plan Amendment to update the City of Fresno Airport and Environs Plan based on updated noise contours, safety data and establish consistency with the Fresno County Airport Land Use Plan.

2.2.2 2015–2025 Improvements

The following airside and landside improvements are proposed to be implemented between 2015 and 2025. As previously stated, these projects are evaluated at the program level under CEQA. See **Figures ES-2** and **ES-3**.

Airside Projects

- Rehabilitate Taxiways B5, B7, B8, B11 and C12;
- Rehabilitate general aviation aprons;
- Construct aircraft maintenance apron;
- Install Category III Instrument Landing System for secondary runway (Runway 11R/29L); and
- Improve the Surface Movements Guidance and Control System (SMGCS) on all taxiways.

Other Projects

- Implement storm drainage improvements, including rehabilitation/enlargement of McKinley/Clovis pump station and infrastructure improvements associated with runway/taxiway work.

2.3 STUDY AREA

Two study areas were established by using commonly accepted planning techniques and prior environmental experience to determine the extent of potential environmental impacts. The Generalized Study Area and Detailed Study Area are depicted in **Figure 4.1-1**. The Generalized Study Area is approximately 2,751 acres, and is based on the 2004-estimated extent of the community noise equivalent level (CNEL) 65 dB contour and the size of the new stormwater detention basin. The Detailed Study Area is confined to FAT's current properties and areas adjacent to the southeastern and northwestern portions of the airfield, and represents the locations where direct disturbance would occur from the alternatives studied in detail. The Detailed Study Area is approximately 1,265 acres.

The Generalized Study Area consists of lands primarily within the City of Fresno. Commercial and industrial land uses surround FAT on the north and south sides, which are considered to be airport compatible land uses. Residential land uses are found on the northwest side of FAT. Most of the homes in this area date to the same time period, the 1950s and early 1960s, when FAT was expanded for commercial aviation. City of Clovis lands that fall within the Generalized Study Area are located near the East Airways Boulevard/West Dakota Avenue intersection and near the North Winery Avenue/East Ashlan Avenue intersection on the northwest side of FAT. These land uses are classified as commercial/industrial and residential uses, respectively. Other land uses within the Generalized Study Area besides the Airport are used for parks and recreation. The area known locally as "leaky acres" is located immediately northwest of FAT, along with another stormwater detention basin. Existing land uses within the Detailed Study Area primarily consist of aviation related development that is associated with FAT as well as a few commercial buildings and a golf course (Airways Golf Course).

2.4 PURPOSE AND NEED FOR THE PROPOSED PROJECT

The Proposed Project is intended to ensure that FAT can accommodate existing and forecasted aviation demand for air carrier, air cargo, air taxi, business and general aviation, flight training, and military services efficiently in the region. The Proposed Project would allow FAT to handle the forecasted aircraft fleet under all weather conditions through improved facilities. The function of FAT would also be enhanced by upgrading navigational aid capabilities to allow for a second, and possibly a third, instrument approach. Military activity would continue to be an important element at FAT and improved facilities would reduce potential conflicts with local military operations.

As shown in the aviation forecast tables above the growth rate is anticipated to continue upward for both passengers and in total operation numbers higher than pre-September 11, 2001 (see **Section 2.3** of the Draft EA/EIR). Given the changing market considerations, particularly for the air cargo carriers, the

Proposed Project was conceived to allow FAT to accommodate the FAA TAF. The AMP documents the need to make the proposed improvements for more efficient air travel at FAT. Without these improvements, delays, load penalties, especially in hot weather conditions, and other constraints may make FAT less desirable to conduct business and could affect the anticipated positive growth pattern.

The need for the Proposed Project is intended to satisfy the general need and the AMP objectives identified above. The following is a summary of the specific needs of both airside and landside projects.

- Provide secondary runway (Runway 11R/29L) of sufficient length, width, and strength to accommodate existing aircraft operations.
- Improve selected taxiways and aprons to sufficient length, width, and strength to support aircraft operations.
- Improve airfield service road.
- Rehabilitate aircraft maintenance apron.
- Provide improved navigational aids (NAVAIDS).
- Rehabilitate existing employee parking area.
- Implement public parking improvements.
- Obtain property and construct storm water detention basin.

Implementation of the Proposed Project would satisfy the purpose and needs outlined above.

3.0 AFFECTED ENVIRONMENT

3.1 STUDY METHODS

Existing land cover at FAT was determined using aerial photographs and verified by URS biologists during a September 2004 and January 2006 reconnaissance visit. Potentially affected habitats within the Detailed Study Area were evaluated for significance based on the quality of the habitat and/or likely occurrence of species. Disturbance of fish, wildlife, and plants as well as threatened and endangered species as a result of the alternatives studied in detail was assessed by comparing their layouts to mapped habitat. Field investigations consisted of site reconnaissance and site-specific survey methods for common species. No species-specific surveys were conducted as part of this review process. The following selected sources were used in the impact analysis:

Potential impacts to fish, wildlife, and plants as well as threatened and endangered species at FAT were evaluated based on a review of the available literature regarding the status and known distribution of the special-status species, and data collected from studies conducted at the Airport for other projects. The following selected sources were used in the impact analysis:

- Aerial photographs of the Airport area and vicinity.
- The USFWS List of Endangered and Threatened Species that may occur in the U.S. Geological Survey (USGS) Quadrangles surrounding the action area, including Sanger, Malaga, Fresno South, Academy, Friant, Clovis, Round Mountain, Lanes Bridge, and Fresno North. (FWS, 2009)
- The California Department of Fish and Game's California Natural Diversity Data Base (CNDDB) (CDFG, 2006) query results for the USGS Quadrangles, including Sanger, Malaga, Fresno South, Academy, Friant, Clovis, Round Mountain, Lanes Bridge, and Fresno North

Once all data sources were reviewed, a final list of federally listed species with moderate or greater potential to occur in the action area was compiled, and each of the species was evaluated for their presence or absence. In addition, the presence of suitable habitat characteristics was evaluated.

3.2 EXISTING ENVIRONMENTAL CONDITIONS

3.2.1 Land Coverage

The land surrounding FAT has been heavily modified by urban development. Mill Ditch provides primary drainage for the Detailed Study Area, which is a human-made water conveyance system. Native plant communities are not the dominant land cover in the Generalized or Detailed Study Areas due to the urbanization of the Fresno-Clovis area, which has been ongoing since the 1940s. The following land coverage has been identified within the Detailed Study Area:

- Airport-Urban Developed
- Non-Native Herbaceous Field
- Seasonally Inundated Drainage
- Seasonally Ponded Swales
- Seasonally Ponded Depressions
- Artificial Ponds

Wherever possible, the vegetation communities were classified according to the nomenclature of Holland (1994) and Sawyer and Keeler-Wolf (1995). Much of the information in this section is derived from a recent biotic assessment conducted by H.T. Harvey and Associates in 2005 (H.T. Harvey, 2005) as well as from a wetland delineation conducted by URS biologists at FAT in January 2006 (URS, 2006a). The land cover types identified in the Detailed Study Area are discussed below.

Airport-Urban Developed – This modified land coverage dominates the Generalized and Detailed Study Areas. Outside of the Detailed Study Area, the land coverage is dominated by industrial uses to the north and south, and residential uses to the northwest. Agriculture/open space uses are located southeast of FAT. Vegetation in these areas typically consists of urbanized grasses, trees, and bushes for landscaping purposes. FAT developed areas include the asphalt runways/taxiways, parking areas, aircraft aprons, terminal and support buildings, and other airport-related infrastructure. Per FAA regulations, these areas are kept free of vegetation for safety-related reasons, except for low-lying grasses and xeriscaping along public parking areas and roads.

Non-Native Herbaceous Field – Vegetation present at FAT surrounding the runways/taxiways and adjacent to the aircraft aprons is predominantly ruderal grasses and includes a hydroseed mixture containing introduced grasses of both native and non-native forbs. Dominant species include softchess brome (*Bromus hordeaceous*) and Pacific fescue (*Vulpia microstachys* var. *pauciflora*), with non-native toadflax (*Linaria pinifolia*, *L. maroccana*), filaree (*Erodium cicutarium*), wire lettuce (*Lactuca serriola*), and native miniature lupine (*Lupinus bicolor*) also common. These fields are regularly graded, and are highly disturbed, due to routine airport maintenance activities.

Airfield maintenance staff performs routine inspections of all airfield facilities; maintenance is performed as necessary following FAA Part 139 Self Inspection Program. Examples of preventative maintenance include repairing areas subject to erosion and removing debris that may create blockages to the storm drain system, which could prevent stormwater from draining as designed. The Storm Water Pollution Prevention Plan (SWPPP) is in place to ensure proper drainage procedures are followed.

Seasonally Inundated Drainage – The seasonally inundated drainages on the airport property are ditches or channels artificially constructed to convey water away from areas such as runways/taxiways and into FAT's stormwater system. Vegetation is not present in these drainage features.

Seasonally Ponded Depressions – The seasonally ponded depressions are small, shallow, concave areas that accumulate water. These areas become small ponds or puddles during significant storm events. These depressions are incorporated into FAT's storm drainage system. Vegetation is not present in these depressions.

Seasonally Ponded Swales – Seasonal swales are shallow, trough-like depressions that carry water or become ponded during significant storm events. These swales differ from ponded depressions in that they are linear features. These swales are incorporated into FAT's storm drainage system. Vegetation is not present in these swales.

Artificial Ponds – Artificial ponds are man-made detention basins that occur on airport property as well as in the Generalized Study Area for stormwater management purposes. Due to the relatively flat terrain of the Fresno-Clovis area, stormwater detention basins are necessary to supplement the regional stormwater system and help contribute to groundwater aquifer recharge. Basins fill during the rainy season (typically winter and spring) and may support emergent aquatic species such as cattails (*Typha* spp.) and tule (*Scirpus* spp.). A small colony of spikerush (*Eleocharis macrostachya*) is present in the stormwater holding area east of North Chestnut Avenue and north of East Shields Avenue on the western side of FAT.

3.2.2 Fish, Wildlife, and Plant Habitat

All of the vegetation communities in the Generalized Study Area are disturbed and provide little habitat for wildlife. Due to ongoing maintenance and application of herbicides and rodenticides, the Generalized Study Area provides roosting habitat for wildlife, but very little foraging or nesting opportunities. Wildlife expected to occur in the upland portions of the Generalized Study Area include species typical of ruderal grasses and agricultural habitats including starlings (*Sturnus vulgaris*), house finches (*Carpodacus mexicanus*), western meadowlarks (*Sturnella neglecta*) and American crows (*Corvus brachyrhynchos*). There is also evidence of California ground squirrels and red fox (*Vulpes vulpes*) occurring at FAT. However, the airport takes measures to manage these species in accordance with the California Department of Fish and Game (CDFG) guidelines and has a contract with Wildlife Control Technology for addressing these species of concern. Amphibians and reptiles that could occur in the area include western toads (*Bufo boreas*) and gopher snakes (*Pituophis melanoleucus*).

The stormwater detention basins in the Generalized Study Area attract some water birds when inundated, including Canada goose (*Branta canadensis*), mallard (*Anas platyrhnychos*), killdeer, black-necked stilt (*Himantopus mexicanus*), and greater yellowlegs (*Tringa melanoleuca*). These large stormwater detention basins provide habitat within the vicinity of the airport for waterfowl and other birds. Many birds, especially larger species of waterfowl such as Canada goose, are at high risk for strikes to aircraft and can potentially create safety hazards for planes. Historically, the risk of bird strike is considered to be low at FAT. Six bird strikes have been recorded during 2006. However, no injuries or impact to Airport operations resulted. FAT follows wildlife management policies and procedures as required by FAA regulations Part 139. Based on the history at FAT, formal bird surveys were not conducted at Leaky Acres or other nearby stormwater detention basins as a part of this Draft EA/EIR.

3.2.3 Special-Status Species, Threatened and Endangered Species

Reviews of the U.S. Fish and Wildlife Service (USFWS) species lists and CDFG California Natural Diversity Database (CNDDB) for the Sanger, Malaga, Fresno South, Academy, Friant, Clovis, Round

Mountain, Lanes Bridge, and Fresno North U.S. Geological Service (USGS) 7.5-minute quadrangles as well as a reconnaissance survey in January 2006 were conducted to identify any threatened, endangered, special concern, or candidate species that might occur within the Generalized or Detailed Study Areas. Of note, the CNDDB nine USGS quadrangle area encompassed the Generalized and Detailed Study Areas. The Detailed Study Area was specifically evaluated to determine whether any habitats were present that could potentially contain or support listed species.

Thirty-six (36) special-status species were identified by the USFWS and CNDDB record search and were reviewed for this Draft EA/EIR, which are shown on **Tables 3.1-1** and **3.1-2** at the end this biological assessment. Of the species considered, 30 are not likely to occur due to a lack of suitable habitat present in the Detailed Study Area, but are listed for informational purposes. The species that have potential to occur in the Detailed Study Area or that need further explanation are described below.

California Horned Lark – The California horned lark (*Eremophila alpestris actia*) is a CDFG species of special concern. Horned larks are common to abundant residents in a variety of open habitats, where woody vegetation is generally low and sparse. Horned larks were observed during the January 2006 reconnaissance survey. Due to regular mowing of the airfield and occasional spraying of herbicides, FAT does not provide suitable nesting habitat for horned larks. However, horned larks are likely to be occasional visitors to the Detailed Study Area, where they may forage year-round within the grassland habitats associated with the airfield.

California Tiger Salamander – The California tiger salamander (*Ambystoma californiense*) is listed as threatened under the Federal Endangered Species Act (ESA), and is designated a "species of special concern" by CDFG. California tiger salamanders occur in the central Pacific Coast Range Mountains from Sonoma County to Santa Barbara County and eastward to the southern Central Valley and the foothills of the Sierra Nevada Mountains. California tiger salamanders typically inhabit grasslands and oak woodland habitats below 1,500 feet that have scattered ponds, intermittent streams, or vernal pools. Suitable breeding habitat for California tiger salamander has been correlated with several variables, including: (1) pond size; (2) duration of ponding; (3) substrates for egg attachment; (4) absence of non-native predators; and (5) upland aestivation (summer hibernation) habitat.

Breeding habitat consists of seasonal pools, low gradient streams, and stock ponds that contain water for at least 10 weeks beyond the breeding season. A significant inverse association of California tiger salamanders with predatory fishes and bullfrogs has been found. California tiger salamanders aestivate in rodent burrows throughout the summer and emerge after the first sustained rain storms in November. Adults will migrate up to 0.6 mile from aestivation (summer hibernation) sites to breeding ponds and juvenile salamanders have been detected as far as 1 mile from breeding sites (Jennings and Hayes, 1994).

There is one documented occurrence of this species in the CNDDB within the Clovis USGS quadrangle west of the Friant canal. However, the tiger salamander occurrence was reported in 1879, with no recent occurrences. Meaning this species is considered to be extirpated (absent) from the area (CDFG, 2006). All other occurrences within the nine USGS quadrangle area are located within less developed environments and not within the Fresno-Clovis urbanized area. While breeding habitat exists within the

stormwater detention basins in the Detailed Study Area, regular mowing of the surrounding upland area and the isolation by roads other suitable habitat make the occurrence of this species unlikely.

Vernal Pool Fairy Shrimp – The vernal pool fairy shrimp (*Branchinecta lynchi*) is listed as threatened under the Federal ESA. This species is widely distributed through the grasslands of California, from Shasta County south to Riverside County. However, populations of vernal pool fairy shrimp are often small, and this species tends to be outnumbered by other co-occurring species. This species occurs in a wide variety of pool types, but is most commonly found in small swales or vernal pools in unplowed grasslands (Eriksen and Belk, 1999). There are two documented occurrences of vernal pool fairy shrimp in the Clovis USGS quadrangle (CDFG, 2006); however, the site closest to FAT is in a vernal pool approximately 5 miles away and east of Clovis.

Vernal Pool Tadpole Shrimp – The vernal pool tadpole shrimp (*Lepidurus packardi*) is listed as critical habitat under the Federal ESA. This species is found in vernal pools and swales containing highly turbid water, often in unplowed grasslands. Tadpole shrimp are known to prey upon fairy shrimp, and although it has not been documented, the vernal pool tadpole shrimp probably preys on the vernal pool fairy shrimp when they co-occur (Eriksen and Belk, 1999). No vernal tadpole shrimp have been documented in the CNDDB nine USGS quadrangle area (CDFG, 2006).

Western Burrowing Owl – The western burrowing owl (*Athene cunicularia hypugea*) is a CDFG species of concern. Burrowing owls inhabit perennial grasslands with low-growing vegetation. Burrows are an essential habitat component for providing protection, shelter, and nesting sites. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels, although artificial burrows such as cement culverts, debris piles, or other human-made structures can be used as well (CBOC, 1993). Burrowing owls are primarily insectivores, but also eat small mammals, reptiles, birds, and carrion (Zeiner et al., 1990).

Burrowing owls have been observed in the Detailed Study Area in the past. The airport has taken measures, in consultation with CDFG, to remove these owls. FAT coordinates with CDFG for burrowing owls and has a contract with Wildlife Control Technology for addressing Threatened and Endangered Species and species of concern. In addition to the birds observed at the airport, two occurrences of the western burrowing owl have been documented in the CNDDB nine USGS quadrangle area (CDFG, 2006). The closest occurrence is located approximately 12 miles from FAT. It was observed in the Lanes Bridge quadrangle, east of State Route (SR) 41 and outside of the Generalized Study Area.

Western Pond Turtle – Western pond turtles, including both the northwestern (*Clemmys marmorata* ssp. *marmorata*) and southwestern (*C. marmorata* ssp. *pallida*) subspecies, are a CDFG species of concern. Western pond turtles range throughout California, from southern coastal California and the Central Valley, east to the Cascade and Sierra Nevada Mountains. The two subspecies are believed to integrate over a broad range in the California Central Valley (Jennings and Hayes, 1994).

Western pond turtles occur in a variety of permanent and intermittent aquatic habitats. Pond turtles require suitable basking and haul-out sites, such as emergent rocks or floating logs, which they use to regulate their temperature throughout the day (Holland, 1994). In addition to appropriate aquatic habitat, these turtles require an upland (oviposition) site in the vicinity of the aquatic habitat, often within 656 feet.

Recent fieldwork has demonstrated that this species may spend the winter in an inactive state, on land or in the water, and in other cases may remain active and in the water throughout the year (Jennings and Hayes, 1994). Upland hibernaculae (hibernation spots) may include any type of crack, hole, or object that a turtle seeking cover might squeeze into or burrow under.

Western pond turtles have been documented twice in the CNDDB nine USGS quadrangle area, both in the Academy quadrangle. One was observed approximately 15 miles from FAT in Little Dry Creek, east of Friant. While habitat exists within the stormwater detention basins in the Detailed Study Area, the isolation by roads of these detention basins from other suitable habitat make the occurrence of this species unlikely.

4.0 IMPACT ASSESSMENT

4.1 METHODOLOGY

Existing land cover at FAT was determined using aerial photographs and verified by URS biologists during September 2004 and January 2006 reconnaissance visits. Potentially affected habitats within the Detailed Study Area were evaluated for significance based on the quality of the habitat and/or likely occurrence of species. Disturbance of fish, wildlife, and plants as well as threatened and endangered species as a result of the alternatives studied in detail was assessed by comparing their layouts to mapped locations of such known communities. Field investigations consisted of site reconnaissance and site-specific survey methods for common species. No species-specific surveys were conducted as part of this review process.

4.2 2009–2014 PROJECTS FINDINGS

4.2.1 Fish, Wildlife, and Plants

Implementation of the Proposed Project from 2009–2014 would not alter the habitat of common plant, wildlife species, sensitive natural communities, or riparian habitat. Also, no aquatic habitat is present at FAT. The major of land at the FAT has already experienced some type of development disturbance in the past. The 2009–2014 projects would not interfere with the movement of any native resident or migratory fish, or wildlife species as the majority of the Generalized Study Area is urbanized and isolated from known wildlife habitats or wildlife corridors. FAT currently complies with all federal, state, and local policies and ordinances protecting common biological resources. There are no approved local, regional, or state habitat conservation plans in the Generalized Study Area. Therefore, no significant impacts are anticipated.

No significant natural landscape exists on the interior of the Proposed Project site, while there are a few shrubs and trees on the periphery of the project site. The existing landscape does not have any unique or uncommon scenic qualities, but would be subject to the City of Fresno Tree Shading Ordinance. All new projects in the City of Fresno are subject to the Tree Shading Ordinance, which outlines the number and location of trees based on the type of proposed development. However, a variance to the standard would be pursued due to the nature of the 2009–2014 projects. Previous Airport-related parking lot projects have installed a minimum number of trees and concentrated them on the perimeters due to safety and security issues. Therefore, implementation of the 2009–2014 projects would not conflict with any local policies protecting biological resources. No significant impacts are anticipated.

4.2.2 Special-Status Species, Threatened and Endangered Species

In order to refine the list of species potentially affected by the 2009–2014 projects , the species listed in **Tables 3.1-1** and **3.1-2** at the end this biological assessment were rated for their potential to occur.

Species with “no or low” potential to occur are presented for informational purposes only. For species rated as “not likely to occur,” appropriate habitat characteristics are not present or they are thought to have been extirpated from the region. Species rated as “low potential to occur” include species whose known distribution does not include the Detailed Study Area, species for which appropriate habitat characteristics or only marginal habitat characteristics are present in the Detailed Study Area, and species that were not observed during the January 2006 reconnaissance visit. Species rated as “moderate potential to occur” include those species for which suitable habitat characteristics are present in the Detailed Study Area even though they were not detected during the reconnaissance visit. Species rated as “known to occur” have been observed in the Detailed Study Area.

For the impact analysis presented in this Draft EA/EIR, species that were rated a “moderate potential to occur” or “known to occur” were considered to be potentially adversely affected if the 2009–2014 projects would affect the species or their habitat. The following four special-status species were found to potentially exist at FAT and could be affected by the 2009–2014 projects.

California Horned Lark (*Eremophila alpestris actia***)** (California Department of Fish and Game Species of Special Concern) – Habitat conditions at FAT are marginal for the California horned lark. The 2009–2014 projects would not remove an appreciable amount of foraging habitat for this species and disturbance from construction is not expected to impact their breeding. No significant impacts are anticipated.

Western Burrowing Owl (*Athene cunicularia hypugea***)** (CDFG Species of Special Concern) – Although no burrowing owls were observed during the January 2006 reconnaissance visit, the owls have been present in the Detailed Study Area in the past and there is potential for this species to occur again.

Listed Branchiopods – No vernal pool fairy shrimp (*Branchinecta lynchi, federally threatened*) or vernal pool tadpole shrimp (*Lepidurus packardi, federally endangered*) were observed during the January 2006 reconnaissance visit within the Detailed Study Area. Potential habitat may exist for these species in the Generalized Study Area in stormwater detention basins and seasonally ponded depressions. Within the DSA, as shown on **Figure 5.12-1**, no stormwater detention basins or seasonally ponded depressions would be directly disturbed by construction of the Proposed Project. Construction activities would not eliminate listed branchiopod habitat and therefore no adverse impact is anticipated. In order to ensure or limit disturbance of these areas during construction activities, BMPs would be employed, if necessary, including: (1) the placement of construction fencing around stormwater detention basins and seasonally ponded depressions to serve as a no-disturbance buffer, (2) limiting the use of rubber tire vehicles between June 1 and October 15, and (3) placing sediment barriers around construction work zones to control surface water runoff.

Implementation of the Proposed Project would not significantly alter the habitat of special-status species or riparian habitat, nor would it result in the taking of any known listed threatened or endangered species or the habitat of such species. All habitats at FAT that may provide habitat for any special-status species are closely managed by FAT. Therefore, with the mitigation of the potential significant impact to the burrowing owl, and the implementation of best management practices to avoid impacts to potential vernal

pool fairy shrimp and vernal pool tadpole shrimp, the Proposed Project would not have a significant impact on any special-status, threatened, or endangered species.

4.3 2015–2025 PROJECT FINDINGS

The impacts of the Proposed Project from 2015–2025 would be the same as the 2009–2014 projects with respect to fish, wildlife, and plant communities. Implementation of the 2015–2025 projects would not alter the habitat of common plant, wildlife species, sensitive natural communities, or riparian habitat. Additionally, the 2015–2025 projects would not interfere with the movement of any native resident or migratory fish, or wildlife species as the majority of the Generalized Study Area is urbanized. FAT currently complies with all federal, state, and local policies and ordinances protecting biological resources. There are no approved local, regional, or state habitat conservation plans in the Generalized Study Area.

The impacts of the Proposed Project from 2015–2025 would be the same as the 2009–2014 projects with respect to threatened and endangered species. The following four special-status species were found to potentially exist in the Generalized Study Area and could be affected by the Proposed Project: California horned lark (*Eremophila alpestris actia*), Western burrowing owl (*Athene cunicularia hypugea*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi*). Similar to the 2009–2014 projects, no significant impacts are anticipated to the California horned lark. Construction activities could result in the conversion of some burrowing owl nesting habitat to Airport-related development and this could be a potentially significant impact. Construction activities from the Proposed Project are not anticipated to impact listed branchiopod habitat. However, implementation of the following avoidance and minimization measure would reduce or eliminate significant impacts. In order to ensure or limit disturbance of these species during construction activities, BMPs would be employed, if necessary, including: (1) the placement of construction fencing around stormwater detention basins and seasonally ponded depressions to serve as a no-disturbance buffer, (2) limiting the use of rubber tire vehicles between June 1 and October 15, and (3) placing sediment barriers around construction work zones to control surface water runoff.

4.4 AVOIDANCE AND MINIMIZATION MEASURES

The following avoidance and minimization measure will be implemented to protect the burrowing owl (CDFG Species of Special Concern), as well as their respective habitat. The FAA and FAT are responsible for implementing the following avoidance and minimization measure.

Conduct Pre-Construction Burrowing Owl Survey. FAT shall conduct a pre-construction survey of ground disturbance sites during the breeding season (from approximately February 1 through August 31), consistent with CDFG guidelines, in the same calendar year that construction is planned to begin. The survey shall be conducted by a qualified biologist to determine whether any burrowing owls are nesting on or directly adjacent to any construction site. If phased construction procedures are planned, the results of the above survey shall be valid only for the season when it is conducted. If the pre-construction breeding season survey does not identify any burrowing owls on the construction site, then no further

mitigation would be required. However, should any burrowing owls be found neither FAT nor any construction contractor shall disturb an occupied burrow while there is an active nest and/or juvenile owls are present. Avoidance shall include the establishment of a non-disturbance buffer zone around the nest site consistent with CDFG guidelines. The buffer zone shall be delineated by highly visible temporary construction fencing. The occupied nest site shall be monitored by a qualified biologist to determine when the juvenile owl is fledged and independent. Disturbance of an occupied burrow shall only occur outside the breeding season and when there is no nest or juvenile owl based on monitoring by a qualified biologist. Based on approval by CDFG, pre-construction and pre-breeding season exclusion measures may be implemented to preclude burrowing owl occupation of a construction site prior to project-related disturbance.

4.5 SUMMARY OF DETERMINATION

With implementation of the avoidance and minimization measures described above, the Proposed Project is not likely to adversely impact burrowing owls.

5.0 REPORT PREPARERS

Field Work by:

Corrina Lu.....URS Biologist
Rosemary Laird.....URS Biologist

Prepared by:

Steve Leach .....URS Biologist
Rosemary Laird.....URS Biologist

Reviewed by:

David Reel.....URS Project Manager
Keith Dewey ..... URS Deputy Project Manager

6.0 REFERENCES AND SOURCES CITED

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Table 3.1-1: Special-Status Species Potentially Occurring in the Vicinity (Federal Designation)

Scientific Name COMMON NAME	Federal Status[1]	Preferred Habitat	Potential to occur in the Project Area
Mammals			
Dipodomys nitratoides exillis FRESNO KANGAROO RAT	E	Alkali sink and open grassland habitats in western Fresno county. Uses bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds above seasonal flood level for burrows.	Not likely to occur; no habitat present
Vulpes macrotis mutica SAN JOAQUIN KIT FOX	E	Annual grassland or grassy open stages with scattered shrubby vegetation, need loose-textured sandy soils for burrowing, and suitable prey base	Not likely to occur; extirpated from project area
Birds			
Falco peregrinus AMERICAN PEREGRINE FALCON	D	Nests on protected cliffs near large waterbodies where prey is abundant; uncommonly found in the Central Valley as a winter resident,	Not likely to occur; no habitat present
Haliaeetus leucocephalus BALD EAGLE	T	Nests and roosts in large-diameter trees or snags near large waterbodies where prey is abundant.	Not likely to occur; no habitat present
Coccyzus americanus occidentalis WESTERN YELLOW-BILLED CUCKOO	C	Dense willow and cottonwood stands in river floodplains	Not likely to occur; no habitat present
Amphibians and Reptiles			
Thamnophis gigas GIANT GARTER SNAKE	T	Freshwater marsh and low gradient streams, has adapted to drainage canals and irrigation ditches	Not likely to occur; no habitat present
Gambelia (Crotaphytus) silus BLUNT-NOSED LEOPARD LIZARD	E	Sparsely vegetated alkali and desert scrub habitats, alkali flats, large washes, arroyos and canyons; find shade under shrubs or in mammal burrows; 30-900 meters	Not likely to occur; no habitat present
Ambystoma californiense CALIFORNIA TIGER SALAMANDER	T and X	Annual grasslands and grassy understory of valley-foothill hardwood habitats, need underground refuges during dry season, need vernal pools or other seasonal water sources for breeding	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Rana aurora draytonii CALIFORNIA RED-LEGGED FROG	T	Breeds in pools with emergent vegetation; typically absent in pools where predatory fish are present; require adequate hibernaculae such as small mammal burrows and moist leaf litter	Not likely to occur; extirpated from project area.

Table 3.1-1: Special-Status Species Potentially Occurring in the Vicinity (Federal Designation) (Continued)

Scientific Name COMMON NAME	Federal Status[1]	Preferred Habitat	Potential to occur in the Project Area
Fish			
Hypomesus transpacificus DELTA SMELT	T	Low-mid reaches of San Joaquin-Sacramento Delta	Not likely to occur; no habitat present
Oncorhynchus mykiss CENTRAL VALLEY STEELHEAD	T	Pacific Ocean, spawn in coastal streams and rivers, over gravel beds	Not likely to occur; no habitat present
Invertebrates			
Branchinecta conservation CONSERVANCY FAIRY SHRIMP	E	Large, turbid pools in the northern two-thirds of the Central Valley, inhabit astatic pools located in swales formed by old, braided alluvium, filled by winter/spring rains, last until June	Not likely to occur; no habitat present
Scientific Name ***COMMON NAME***	**Federal Status[1]**	**Preferred Habitat**	**Potential to occur in the Project Area**
Branchinecta lynchi VERNAL POOL FAIRY SHRIMP	T and X	Vernal pools, inhabit small, clear-water sandstone depression pools and grassed swale, earth slump, or basalt-flow depression pools	Not likely to occur; no habitat present within the Proposed Project area.
Lepidurus packardi *VERNAL POOL* TADPOLE SHRIMP	X	Seasonal pools in unplowed grassland with old alluvial soils underlain by hardpan or in sandstone depressions, water in the pools has very low alkalinity and conductivity	Not likely to occur; no habitat present within the Proposed Project area.
Desmocerus californicus dimorphus VALLEY ELDERBERRY LONGHORN BEETLE	T	Elderberry shrubs	Not likely to occur; no elderberry shrubs are present
Plants			
Orcuttia pilosa HAIRY ORCUTT GRASS	E and X	Vernal pools, endemic to the Sacramento Valley	Not likely to occur; no habitat present
Orcuttia inaequalis SAN JOAQUIN VALLEY ORCUTT GRASS	T and X	Vernal pools	Not likely to occur; no habitat present
Castilleja campestris ssp. succulenta SUCCULENT OWL'S CLOVER	T and X	Vernal pools and moist places, often in acidic soils, in valley and foothill grasslands	Not likely to occur; no habitat present
Pseudobahia bahiifolia HARTWEG'S GOLDEN SUNBURST	E	Cismontane woodlands and valley foothill grasslands with clay soils	Not likely to occur; no habitat present
Pseudobahia peirsonii SAN JOAQUIN ADOBE SUNBURST	T	Cismontane woodlands and valley foothill grasslands with adobe soils.	Not likely to occur; no habitat present

Note:

Federal Endangered Species Act

E – Endangered T- Threatened C- Candidate for listing status

PT – Proposed for listing as Threatened D – Delisted X- Critical habitat

Table 3.1-2: Special-Status Species Potentially Occurring in the Vicinity (State Designation)

Scientific Name COMMON NAME	State Status[1]	CNPS/ R-E-D[2]	Other Status[3]	Preferred Habitat	Potential to occur in the Project Area
Mammals					
Dipodomys nitratoides exillis FRESNO KANGAROO RAT	E	N/A	-	Alkali sink and open grassland habitats in western Fresno county. Uses bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds above seasonal flood level for burrows.	Not likely to occur; no habitat present
Ammospermophilus nelsoni SAN JOAQUIN ANTELOPE SQUIRREL	T	N/A	-	Western San Joaquin Valley from 200-1,200 feet on dry, sparsely vegetated loam soils; dig burrows or use kangaroo rat burrows, need widely scattered shrubs, forbs, and grasses in broken terrain with gullies and washes	Not likely to occur; no habitat present
Vulpes macrotis mutica SAN JOAQUIN KIT FOX	T	N/A	-	Annual grassland or grassy open stages with scattered shrubby vegetation, need loose-textured sandy soils for burrowing, and suitable prey base	Not likely to occur; extirpated from project area
Taxidea taxus AMERICAN BADGER	None	N/A	SSC	Grasslands, prairies, deserts,	Not likely to occur; no habitat present
Birds					
Falco peregrinus AMERICAN PEREGRINE FALCON	E	N/A	-	Nests on protected cliffs near large waterbodies where prey is abundant; uncommonly found in the Central Valley as a winter resident,	Not likely to occur; no habitat present
Haliaeetus leucocephalus BALD EAGLE	E	N/A	Protected	Nests and roosts in large-diameter trees or snags near large waterbodies where prey is abundant.	Not likely to occur; no habitat present
Agelaius tricolor (nesting colony) TRICOLORED BLACKBIRD	None	N/A	SSC	Nests next to open water where there is extensive emergent vegetation, blackberry or wild rose bushes; frequently forages in grainfields.	Not likely to occur; no habitat present
Athene cunicularia hypugea WESTERN BURROWING OWL	None	N/A	SSC	Nests and winters in grassland and sparse shrubland habitats throughout California; uses abandoned burrows of burrowing mammals for shelter and nest sites.	Known to occur in recent years, some potential to occur in the project area
Eremophila alpestris actia CALIFORNIA HORNED LARK	None	N/A	SSC	Open habitats with sparse vegetation and exposed soil	Known to occur. Observed in the project area in 2005.
Coccyzus americanus occidentalis WESTERN YELLOW-BILLED CUCKOO	E	N/A	-	Dense willow and cottonwood stands in river floodplains	Not likely to occur; no habitat present

Table 3.1-2: Special-Status Species Potentially Occurring in the Vicinity (State Designation) (Continued)

Scientific Name COMMON NAME	State Status[1]	CNPS/ R-E-D[2]	Other Status[3]	Preferred Habitat	Potential to occur in the Project Area
Amphibians and Reptiles					
Thamnophis gigas GIANT GARTER SNAKE	T	N/A	-	Freshwater marsh and low gradient streams, has adapted to drainage canals and irrigation ditches	Not likely to occur; no habitat present
Phrynosoma coronatum frontale CALIFORNIA HORNED LIZARD	None	N/A	SSC/ Protected	Valley-foothill hardwood, conifer, and riparian habitats, as well as pine-cypress, juniper, and annual grass habitats, bask on low boulders or rocks, burrow into soil or under objects for cover and hibernation	Not likely to occur; no habitat present
Gambelia (Crotaphytus) silus BLUNT-NOSED LEOPARD LIZARD	E	N/A	Protected/ Fully Protected	Sparsely vegetated alkali and desert scrub habitats, alkali flats, large washes, arroyos and canyons; find shade under shrubs or in mammal burrows; 30-900 meters	Not likely to occur; no habitat present
Clemmys marmorata WESTERN POND TURTLE	None	N/A	SSC/ Protected	Ponds, marshes, rivers, streams, irrigation ditches, need basking sites such as partially submerged logs or rocks, and suitable upland habit (sandy banks or grassy open fields) for egg laying.	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Ambystoma californiense CALIFORNIA TIGER SALAMANDER	None	N/A	SSC	Annual grasslands and grassy understory of valley-foothill hardwood habitats, need underground refuges during dry season, need vernal pools or other seasonal water sources for breeding	Low potential to occur; poor quality habitat present in the detention ponds only. Detention ponds were constructed after the development of the surrounding roads and airport
Spea hammondii WESTERN SPADEFOOT	None	N/A	SSC	Grassland and valley-foothill hardwood woodlands, vernal pools or seasonal wetlands are essential for egg laying	Not likely to occur; no habitat present
Rana aurora draytonii CALIFORNIA RED-LEGGED FROG	None	N/A	SSC/ Protected	Breeds in pools with emergent vegetation; typically absent in pools where predatory fish are present; require adequate hibernaculae such as small mammal burrows and moist leaf litter	Not likely to occur; extirpated from project area.
Fish					
Hypomesus transpacificus DELTA SMELT	T	N/A	-	Low-mid reaches of San Joaquin-Sacramento Delta	Not likely to occur; no habitat present
Mylopharodon conocephalus HARDHEAD	None	N/A	SSC	Sacramento-San Joaquin river system and the Russian River system	Not likely to occur; no habitat present

Table 3.1-2: Special-Status Species Potentially Occurring in the Vicinity (State Designation) (Continued)

Scientific Name COMMON NAME	State Status[1]	CNPS/ R-E-D[2]	Other Status[3]	Preferred Habitat	Potential to occur in the Project Area
Plants					
Orcuttia pilosa HAIRY ORCUTT GRASS	E	1B/ 2-3-3	-	Vernal pools, endemic to the Sacramento Valley	Not likely to occur; no habitat present
Orcuttia inaequalis SAN JOAQUIN VALLEY ORCUTT GRASS	E	1B/ 2-3-3	-	Vernal pools	Not likely to occur; no habitat present
Castilleja campestris ssp. succulenta SUCCULENT OWL'S CLOVER	E	1B/ 2-2-3	-	Vernal pools and moist places, often in acidic soils, in valley and foothill grasslands	Not likely to occur; no habitat present
Pseudobahia bahiifolia HARTWEG'S GOLDEN SUNBURST	E	1B/ 2-3-3	-	Cismontane woodlands and valley foothill grasslands with clay soils	Not likely to occur; no habitat present
Pseudobahia peirsonii SAN JOAQUIN ADOBE SUNBURST	E	1B/ 2-3-3	-	Cismontane woodlands and valley foothill grasslands with adobe soils.	Not likely to occur; no habitat present
Eryngium spinosepalum SPINY-SEPALED BUTTON-CELERY	None	1B/ 3-3-3	-	Valley and foothill grasslands, vernal pools	Not likely to occur; no habitat present
Caulanthus californicus CALIFORNIA JEWEL-FLOWER	None	1B/ 3-3-3	-	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland, sandy soils	Not likely to occur; no habitat present
Tuctoria greenei GREENE'S TUCTORIA	None	1B/ 2-3-3	-	Vernal pools	Not likely to occur; no habitat present
Leptosiphon serrulatus MADERA LEPTOSIPHON	None	1B/ 2-3-3	-	Cismontane woodland, lower montane coniferous forest	Not likely to occur; no habitat present
Sagittaria sanfordii SANFORD'S ARROWHEAD	None	1B/ 2-2-3	-	Shallow freshwater marshes and swamps	Not likely to occur; no habitat present
Tropidocarpum capparideum CAPER-FRUITED TROPIDOCARPUM	None	1B/ 3-3-3	-	Valley and foothill grassland	Not likely to occur; no habitat present
Downingia pusilla DWARF DOWNINGIA	None	2/ 1-2-1	-	Valley and foothill grasslands, vernal pools	Not likely to occur; no habitat present

Note: [2] California Native Plant Society (CNPS)

1A Plant species that are presumed extinct in California
1B Plant species that are rare, threatened, or endangered in California and elsewhere
2 Plant species that are rare, threatened, or endangered in California but more common elsewhere
3 Plant species about which we need more information (a review list)
4 Plant species of limited distribution (a watch list).

[3] Other Status

California Department of Fish and Game
E– Endangered T- Threatened SSC- Species of Special Concern X- Critical habitat
Protected and Fully Protected – Species which cannot be taken or possessed without a permit from the Fish and Game Commission and/or Department of Fish and Game

APPENDIX I
FARMLAND EVALUATION

FRESNO YOSEMITE INTERNATIONAL AIRPORT
EA/EIR

FLY FRESNO
City of Fresno - Airports

Russell C. Widmar, AAE
Director of Aviation

Fresno Yosemite International Airport
Fresno Chandler Executive Airport
4995 East Clinton Way
Fresno, CA 93727-1525
559-621-4500
FAX 559-251-4825
www.flyfresno.org

August 8, 2008

David Durham
District Conservationist
USDA – Natural Resources Conservation Service
Fresno Service Center
4625 West Jennifer Avenue, Suite 125
Fresno, California 93722-6424

Re: Master Plan Update for Fresno Yosemite International Airport; Fresno, CA
Farmland Conversion Impact Rating

Dear Mr. Durham:

Pursuant to the Farmland Protection Policy Act (FPPA), the City of Fresno, CA, on behalf of the Federal Aviation Administration (FAA) is requesting your review and comment on the significance of the conversion of farmland to an urban land use under the USDA Farmland Conversion Impact Rating Form (AD-1006). The FAA is the lead federal agency responsible for an environmental determination in accordance with the National Environmental Policy Act (NEPA) for the Master Pan Update Projects at Fresno Yosemite International Airport (FAT), while the City of Fresno is the lead local agency responsible for an environmental determination in accordance with the California Environmental Quality Act (CEQA). The Master Plan Update includes projects that would be implemented at the airport in two phases: short-term (2008-2011) and long-term (2012-2025). The City proposes to improve FAT's aviation facilities to meet existing demand by the year 2012 and accommodate future growth by the year 2025.

Proposed Action

FAT is located approximately 5 miles northeast of downtown Fresno, bordered by State Route (SR)-180 to the south and SR-168 to the east. The project vicinity and location of the airport is depicted in **Figure 1-1**. The Master Plan identified a number of airside and landside projects over the next 18 years, as illustrated in **Figures 1-2, 1-3,** and **1-4**. The Generalized and Detailed Study Areas are shown on **Figure 4.1-1**. A Draft Environmental Assessment (EA) has been written to analyze the impacts of the short-term projects, while a Draft Environmental Impact Report (EIR) has been written to quantitatively analyze the impacts of the short-term projects and qualitatively analyze the impacts of the long-term projects. The long-term projects are considered not "ripe for decision" at this time by FAA, and therefore were not included within the Draft EA analysis. The long-term projects are addressed at the program level to meet the California Environmental Quality Act (CEQA) requirements in the Draft EIR. The projects are summarized below.

SHORT-TERM PROJECTS (2008-2011)

Airside Projects

- Extend length of secondary runway (Runway 11R/29L) from 7,206 feet to 8,000 feet to the west;
- Widen secondary runway from 100 feet to 150 feet;
- Construct Taxiway B14 and extend Taxiway B;
- Rehabilitate Taxiways B, B4, C, C4, Hold Pad B and Hold Pad C;
- Rehabilitate concourse aprons adjacent to original terminal building;
- Rehabilitate general aviation aprons; and
- Relocate and rehabilitate airfield service road.

Landside Projects

- Construct consolidated rental car facility;
- Construct terminal parking garage;
- Construct new employee parking area; and
- Implement public parking improvements, including relocated meter parking, reconfigured signage, construct a park-and-wait area, and construct a permanent parking attendant structure.

Other Projects

- Acquire land and construct new offsite detention basin (30 acres); and
- Implement storm drainage improvements, including conversion of North Chestnut/East Shields Basin storm water holding area to detention basin with pump station and infrastructure improvements associated with runway/taxiway work.

LONG-TERM PROJECTS (2012-2025)

Airside Projects

- Extend length of primary runway (Runway 11L/29R) from 9,222 feet to 10,000 feet to the west;
- Extend length of secondary runway (Runway 11R/29L) from 8,000 feet to 8,700 feet to the east;
- Construct Taxiways B14 and C14 and extend Taxiway C;
- Rehabilitate Taxiways B2, B5, B6, B7, B8, B11, C10 and C12;
- Continue rehabilitation of concourse aprons adjacent to original terminal building;
- Continue rehabilitation of general aviation aprons;
- Construct aircraft maintenance apron;
- Install Category III landing system for secondary runway (Runway 11R/29L);
- Improve the Surface Movements Guidance and Control System (SMGCS) on all taxiways; and
- Relocate airfield service road.

Landside Projects

- Expand terminal concourse building;
- Rehabilitate and expand terminal support facilities, including the airport traffic control tower, food distribution, waste disposal, maintenance, and aircraft rescue and fire fighting station;
- Expand the air cargo facility;
- Implement public parking improvements, including covered parking areas and taxicab shelter; and
- Implement road access improvements, including relocating East Dakota Avenue, vacating North Winery Avenue, and constructing Aircorp Way extension.

Other Projects

- Acquire land for noise mitigation and approach safety areas on the southeast side of the airfield (290 acres); and
- Implement storm drainage improvements, including rehabilitation/enlargement of McKinley/Clovis pump station and infrastructure improvements associated with runway/taxiway work.

Existing Conditions

Two areas were established for the analysis, a Generalized Study Area which includes the airport and surrounding areas and a Detailed Study Area which is focused more directly on FAT property. The farmland soils of Fresno County were analyzed, and are shown in **Figure 4.4-3**. Based on information provided from the appropriate County Soil Survey, it was determined through GIS analysis that within the Detailed Study Area there are approximately 30 acres of soil classified as prime farmland and 8 acres of soil classified as locally important farmland. The locally important farmland is not actively being used for agriculture, nor would it be in the future. The farmlands of local importance within the Detailed Study Area are located near the California Army National Guard facility and adjacent to East Airways Boulevard on the north side of the airfield. The prime farmlands within the Detailed Study Area are located near Mill Ditch and Armstrong Avenue, which is 2 miles east of FAT and the site of the new stormwater detention basin. The remaining 1,227 acres within the Detailed Study Area is composed of urban land by NRCS criteria or would not be impacted by the proposed action.

Potential Effects

Based on the layout of the proposed action, 30 acres of land east of FAT would be converted from prime farmland into a stormwater detention basin near Mill Ditch and Armstrong Avenue. This land would be converted from agriculture to an urban use.

Per the requirements of the FPPA, the USDA Farmland Conversion Impact Rating Form (AD-1006) was completed to assess the impacts to either prime farmlands or locally important farmlands. A copy of completed form is attached. By applying the rating criteria, a score of 58 points out of a possible 160 points was reached. This indicates that although some soils are classified as prime and/or state/locally important farmland,

they are afforded a low protection priority when compared to other soils and active agricultural areas in Fresno County. Therefore, we have determined that the effects associated with the proposed action are not considered adverse.

As required, the City of Fresno has completed Parts I, II (partially), III, and VI. We request that you complete Parts II and V of Form AD-1006 to complete your assessment of the proposed action. In accordance with 36 CFR 800.4(2)(d), the City of Fresno and FAA may proceed with the project unless you object to our determination within 30 days of your receipt of this documentation. If you have any further questions or comments regarding this proposed action, please contact me at (559) 621-4500.

Sincerely,

Kevin Meikle
Airports Planning Manager

enclosures: Figure 1-1 Project Location and Vicinity
Figure 1-2 Short-Term Improvements (2008 to 2011)
Figure 1-3 Long-Term Improvements (2012 to 2025)
Figure 1-4 Offsite Proposed Master Plan Improvements
Figure 4.1-1 Generalized and Detailed Study Area
Figure 4.4-3 Farmlands
USDA Farmland Conversion Impact Rating Form (AD-1006)

cc: Douglas Pomeroy, FAA
David Reel, URS Corporation

Source:
Expedia Maps, 2004

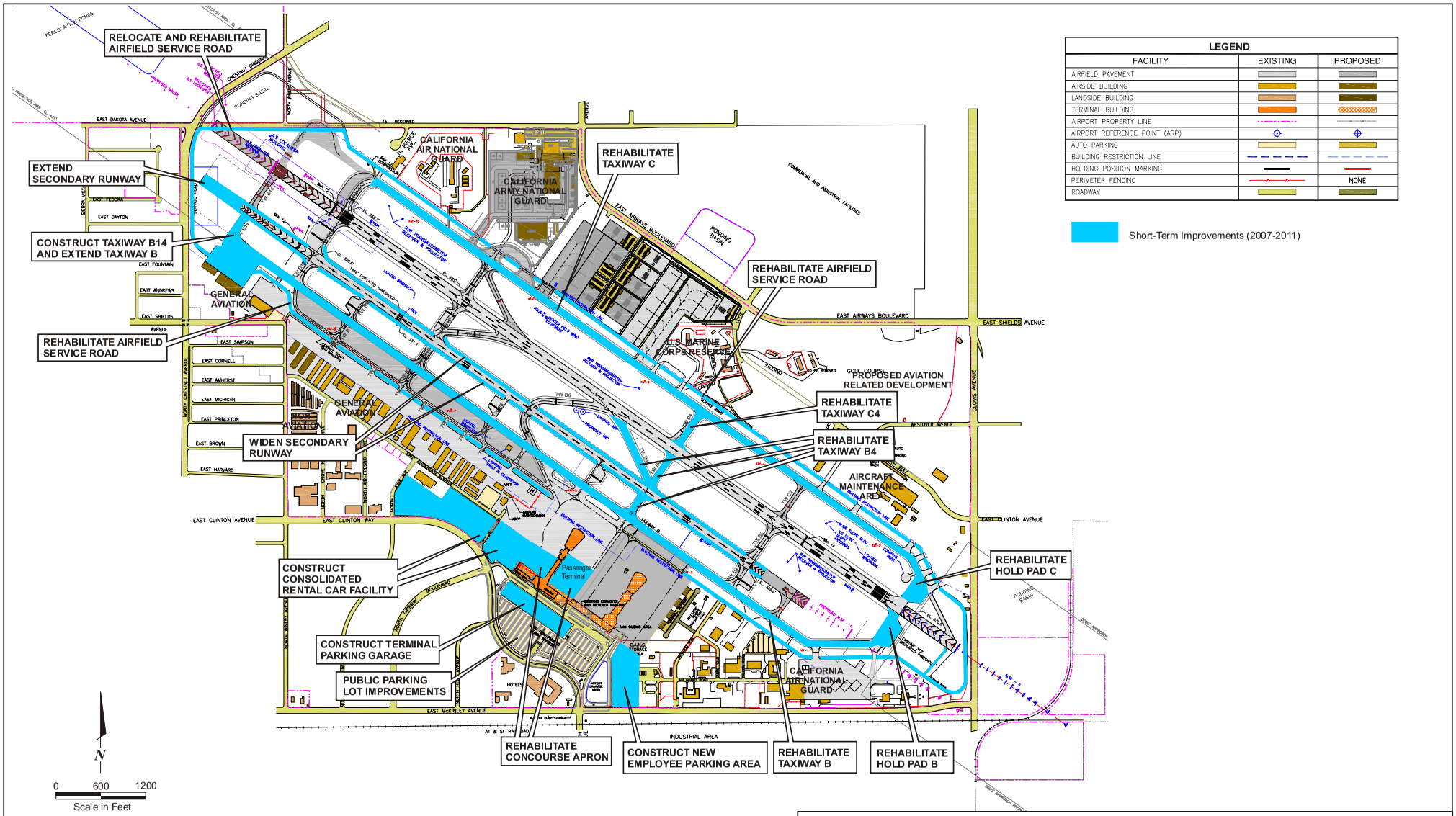
PROJECT LOCATION AND VICINITY

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

August 2008
28066717.03001

FIGURE 1-1

7/10/08 vsa ..\28066717 Fresno Airport \EA-EIR 2008\EA-EIR AUGUST 2008\1-1_loc-vic_aug08.cdr



LEGEND		
FACILITY	EXISTING	PROPOSED
AIRFIELD PAVEMENT		
AIRSIDE BUILDING		
LANDSIDE BUILDING		
TERMINAL BUILDING		
AIRPORT PROPERTY LINE		
AIRPORT REFERENCE POINT (ARP)		
AUTO PARKING		
BUILDING RESTRICTION LINE		
HOLDING POSITION MARKING		
PERIMETER FENCING		NONE
ROADWAY		

Short-Term Improvements (2007-2011)

Source: FAT Master Plan Update (URS 2006b)

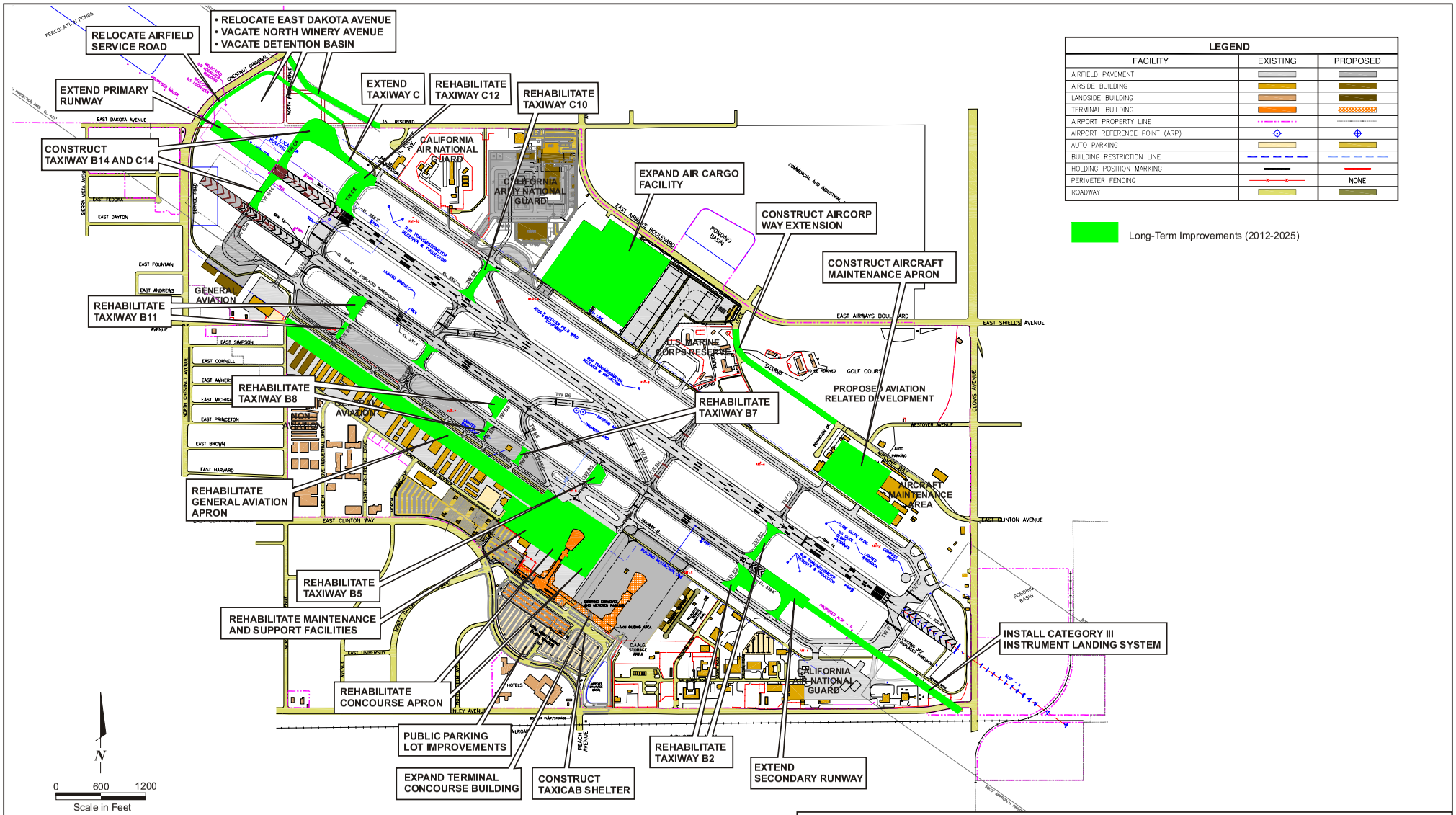
PROPOSED MASTER PLAN IMPROVEMENTS (SHORT-TERM IMPROVEMENTS 2007-2011)

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

August 2008
28066717.03001

FIGURE 1-2

8/22/08 vsa .\28066717 Fresno Airport\EA-EIR 2008_EA-EIR AUGUST 2008\1-2_short-term_08-22-08.cdr



Source: FAT Master Plan Update (URS 2006b)

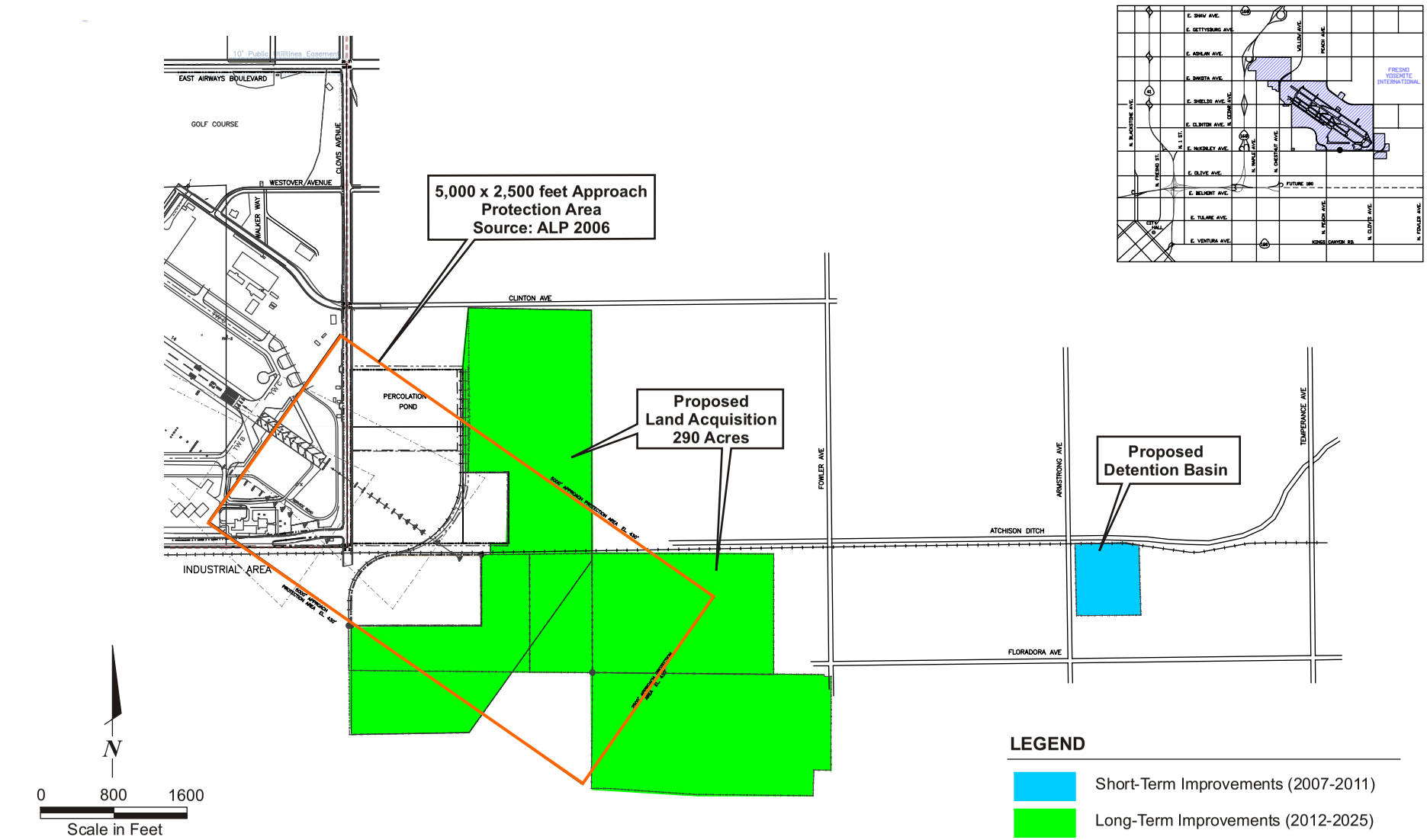
PROPOSED MASTER PLAN IMPROVEMENTS (LONG-TERM IMPROVEMENTS 2012-2025)

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

August 2008
28066717.03001

FIGURE 1-3

8/25/08 vsa ..\28066717 Fresno Airport\EA-EIR 2008\EA-EIR AUGUST 2008\1-3_long-term_08-25-08.cdr



Source: FAT Master Plan Update (URS 2006b)

FEDERAL AVIATION ADMINISTRATION

FRESNO YOSEMITE International Airport

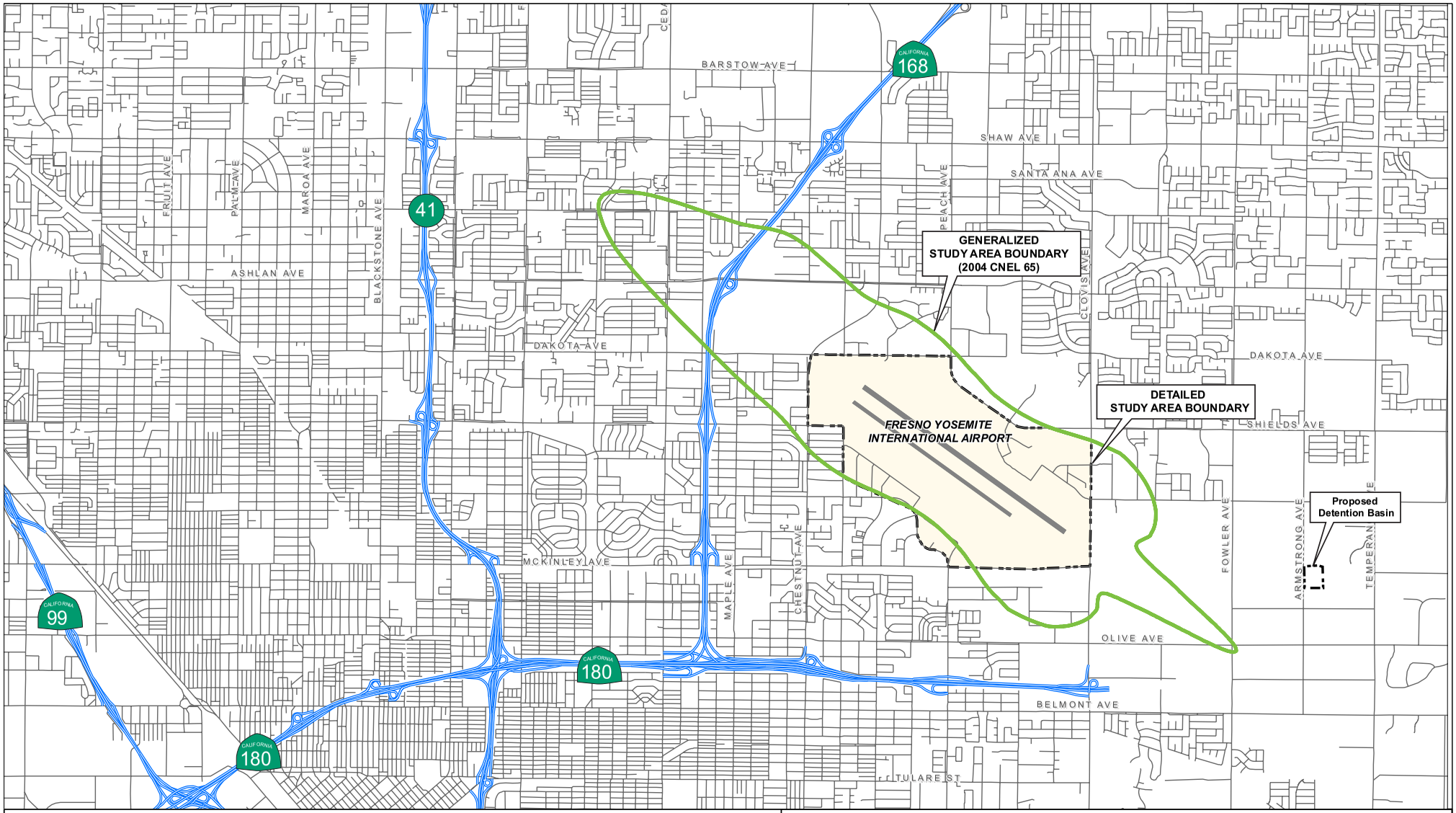
OFFSITE PROPOSED MASTER PLAN IMPROVEMENTS

August 2008
28066717.03001

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

FIGURE 1-4

9/12/08 vsa..\28066717 Fresno Airport\EA-EIR 2008\EA-EIR AUGUST 2008\1-4_LT-additional_091208.cdr



Legend

- Airport Runways
- Detailed Study Area
- Generalized Study Area (2004 CNEL 65)
- Limited Access Hwy
- Other Roads

N

0 2000 4000
Scale in Feet

FRESNO YOSEMITE International Airport

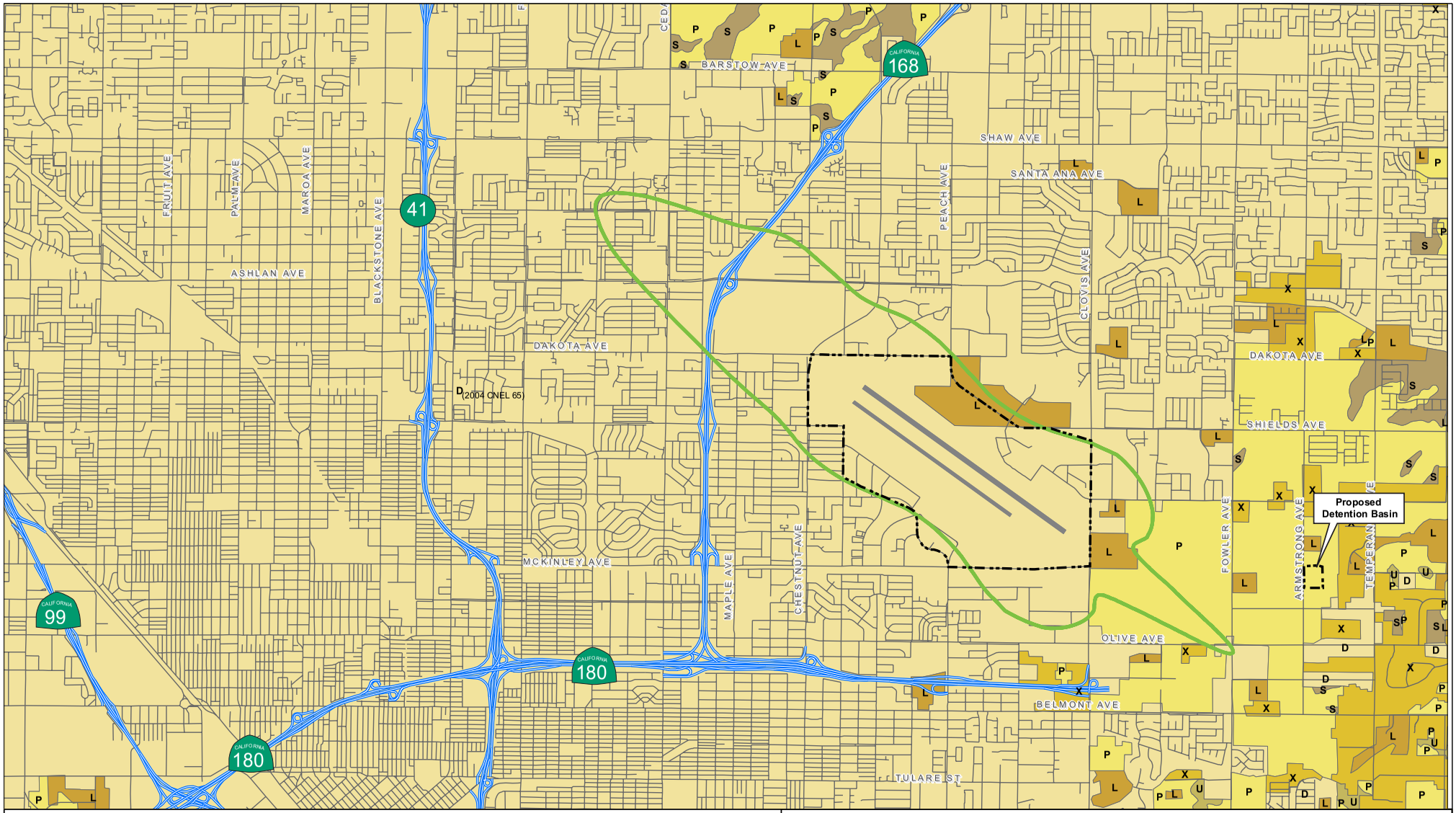
GENERALIZED AND DETAILED STUDY AREA

August 2008
28066717.03001

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

FIGURE 4.1-1

9/12/08 vsa ..\T:\28066717 Fresno Airport\EA-EIR 2008\EA-EIR AUGUST 2008\4.1-1_gen_and_detailed_study_area_rev_091208.ai



Legend

Farmland

- Urban and Built-Up Land (D)
- Farmland of Local Importance (L)
- Prime Farmland (P)
- Farmland of Statewide Importance (S)
- Unique Farmland (U)
- Other Land (X)

Other Features

- Generalized Study Area (2004 CNEL 65)
- Detailed Study Area
- Limited Access Hwy
- Other Roads
- Airport Runways

0 2000 4000
Scale in Feet

N

Source: California Department of Conservation, Division of Land Resource Protection

FRESNO YOSEMITE International Airport

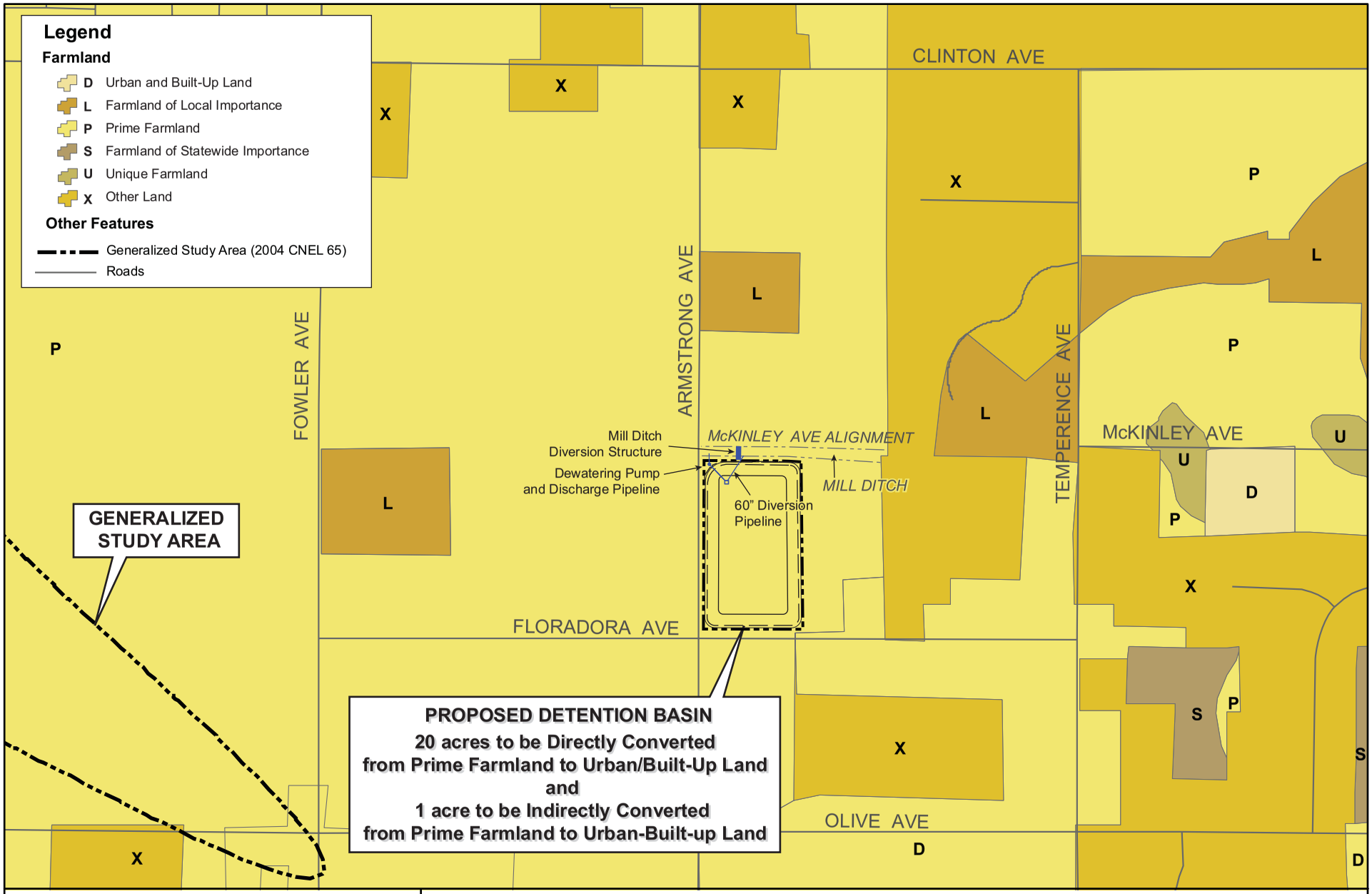
August 2008
28066717.03001

FARMLANDS

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

FIGURE 4.4-3

9/12/08 vsa ..\T:\28066717 Fresno Airport\EA-EIR 2008\EA-EIR AUGUST 2008\4.4-3_soils_and_farmlands_091208.ai



0 500 1000
Scale in Feet

Source: California Department of Conservation, Division of Land Resource Protection

N

FEDERAL AVIATION ADMINISTRATION

FRESNO YOSEMITE International Airport

FARMLANDS – DETENTION BASIN AREA

Fresno Yosemite International Airport
Master Plan Update EA/EIR
Fresno, California

August 2008
28066717.03001

FIGURE 4.4-3a

9/12/08 vsa ..\T:\28066717 Fresno Airport\EA-EIR 2008\EA-EIR AUGUST 2008\4.4-3a_soils_detention basin_091208.ai

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 5/12/08
Name Of Project FAT Master Plan Update Projects	Federal Agency Involved Federal Aviation Administration
Proposed Land Use Urban Stormwater Detention Basin	County And State Fresno, California
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☑	No ☐	Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: % 0		Amount Of Farmland As Defined in FPPA Acres: % 100
Name Of Land Evaluation System Used	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	21.0			
B. Total Acres To Be Converted Indirectly	9.0			
C. Total Acres In Site	30.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*		0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	9			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	7			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	3			
8. Creation Of Nonfarmable Farmland	10	0			
9. Availability Of Farm Support Services	5	4			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	5			
TOTAL SITE ASSESSMENT POINTS	160	58	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100		0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	58	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	58	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection:

(See Instructions on reverse side) **Form AD-1006 (10-83)**

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U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 5/12/08
Name Of Project FAT Master Plan Update Projects	Federal Agency Involved Federal Aviation Administration
Proposed Land Use Urban Stormwater Detention Basin	County And State Fresno, California
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 9-8-08

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☒	No ☐	Acres Irrigated 1,297,400	Average Farm Size 280

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount Of Farmland As Defined in FPPA
Grapes, Row Crops, Orchards	Acres: 1,298,400 % 34	Acres: N/A % 100
Name Of Land Evaluation System Used: California Storie System	Name Of Local Site Assessment System: None	Date Land Evaluation Returned By NRCS: 9-15-08

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	21.0			
B. Total Acres To Be Converted Indirectly	9.0			
C. Total Acres In Site	30.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	30			
B. Total Acres Statewide And Local Important Farmland	0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	.0023			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	N/A			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	96	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Nonurban Use	15	9			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	7			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	3			
8. Creation Of Nonfarmable Farmland	10	0			
9. Availability Of Farm Support Services	5	4			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	5			
TOTAL SITE ASSESSMENT POINTS	160	58	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100		0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	58	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	58	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection:

(See Instructions on reverse side)

Form AD-1006 (10-83)

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