APPENDIX B

RESPONSES TO NOTICE OF PREPARATION
Mr. Larry Rillera, Manager  
Yolo County Parks & Facilities  
625 Court Street  
Woodland, Ca 95695

Re: Subject of Review: Notice of Preparation of Environmental Assessment  
Project Title: Yolo County Airport Master Plan Program EIR/EA

Dear Mr. Rillera:

The Yolo County Flood Control and Water Conservation District has reviewed the above referenced Environmental Assessment. The District reviews proposed projects with regards to their potential impacts on District facilities, drainage, and water quality and quantity.

Please be aware that there are existing flooding problems in areas around and downstream of the airport and that the District has canal facilities near, on and under airport property.

The District requests a copy of the Draft EIR when it is available for review and comment. Thank you for the opportunity to provide input early in the process. If you have questions, please call.

Sincerely yours,

Mrs. Christy Barton  
Assistant General Manager
memorandum

to:       LARRY RILLERA, Manager, Parks and Facilities
from:     THOMAS F. TRACY, Assistant Director
subject:  Yolo County Airport Master Plan EIR
date:     May 19, 1997

We have received your Notice of Preparation of the Draft EIR for the Yolo County Airport Master Plan.

I understand that the Draft EIR will address the program's effect on offsite vehicular circulation and offsite drainage, two topics of concern to this Department.

There are several roadway routes to the airport, all on County roads. Some of these roads are substandard, both geometrically and structurally, so that significantly greater volumes of traffic to and from the airport may result in increased accidents and quicker degradation of the roadway. This needs to be addressed.

Flooding of land and structures downstream of the airport is a concern. Some homes were flooded in March, 1995, and at least one home was abandoned. About a dozen homes were flooded, and the residents evacuated, in the floods of January, 1997. Some of these people blame the airport for their flooding, although I have not seen persuasive evidence of the connection. In any event, additional construction at the airport may increase and hasten stormwater runoff, which may result in increased flooding downstream. This also needs to be addressed.

Please send further correspondence to me at Courier #26, or telephone me at Ext. 8848.

TFT:clk

cc:       John Bencomo
May 29, 1997

Larry Rillera
Manager of Parks & Facilities
Yolo County General Services Agency
625 Court Street, Room 203
Woodland, CA 95695

Dear Mr. Rillera:

Please find attached an Airport Land Use Commission (ALUC) review of the Yolo County Airport Master Plan. This review is in response to the Notice of Preparation for the Yolo County Airport Master Plan Program Draft Environmental Report/Environmental Assessment. As noted in the review, ALUCs are required under existing ALUC law to review the compatibility of airport master plan modifications with adopted ALUC plans. In this case, a review of the proposed master plan found it to be compatible with the existing Yolo County Airport Comprehensive Land Use Plan. Following adoption of the master plan by Yolo County, the ALUC will use it as the basis for an amendment to the CLUP to update its height, noise and safety policies consistent with the updated airport master plan.

Should you have any questions about the attached review, please give me a call at 457-2264.

Sincerely,

David Boyer
Associate Planner

Enclosure

cc: Keith Ott, Yolo County Airport Manager
REQUEST FOR STAFF REVIEW

AIRPORT LAND USE COMMISSION
FOR SACRAMENTO, SUTTER, YOLO AND YUBA COUNTIES
3000 S STREET, SUITE 300
SACRAMENTO, CA 95816-7056
PHONE: (916) 457-2264
FAX: (916) 457-3299

DATE RECEIVED: 5/597
ALUC REVIEW NO.: 97-30

PROJECT APPLICANT: Yolo County General Services Agency
PROJECT TITLE: Yolo County Airport Master Plan

AFFECTED AIRPORT: Yolo County Airport

REQUESTED BY: Yolo County General Services Agency
CONTROL NO.: N/A
DATE COMMENTS REQUESTED: 6/5/97

APPLICATION FOR: [ ] REZONE [ ] GENERAL/COMMUNITY PLAN AMENDMENT [X] OTHER: Airport Master Plan

LOCATION OF PROJECT (REFERENCE TO AIRPORT): Yolo County Airport is located in south-central Yolo County, just to the north and west of the City of Davis and southwest of the City of Woodland. The main access roads in the vicinity of the airport are Roads 29, 31, and 95.

DESCRIPTION OF PROPOSED PROJECT: The project consists of a major update of the Yolo County Airport Master Plan. The plan establishes a development program that will guide airport development over the next 20 years.

APPLICABLE ALUC POLICY: [X] HEIGHT [X] SAFETY [X] NOISE

ALUC STAFF COMMENTS:

Airport Land Use Commission law is contained in Chapter 4, Article 3.5 of the Public Utilities Code. Section 21676(c) of the law requires a public agency owning an airport located within an ALUC’s jurisdiction to refer any airport master plan modifications to the ALUC. The ALUC is, in turn, required to determine the consistency of the proposed master plan modification with the appropriate ALUC plan. The existing ALUC plan is the Yolo County Airport Comprehensive Land Use Plan (CLUP), adopted December 1981 and subsequently amended December 1992.

ALUCs are required to base their plans on airport master plans or airport layout plans which reflect the anticipated growth of an airport over a 20 year period. Following the adoption of the Yolo County Airport Master Plan by the Yolo County Board of Supervisors, the ALUC will consider an amendment to the existing CLUP which reflects appropriate height, noise and safety policies consistent with the updated airport master plan. Since the master plan will serve as the basis for the CLUP amendment by the ALUC, it is found to be compatible with the existing Yolo County Airport CLUP.

APPLICABLE ALUC PLAN: Yolo County Airport Comprehensive Land Use Plan

PROJECT IS:
[X] COMPATIBLE
[ ] COMPATIBLE, SUBJECT TO CONDITIONS
[ ] INCOMPATIBLE, DUE TO:

[ ] HEIGHT [ ] SAFETY [ ] NOISE

REVIEWED BY: David Boyer, Associate Planner
DATE: 5/29/97
May 27, 1997

Mr. Larry Rillera
Manager Parks & Facilities
Yolo County General Services Agency
625 Court Street, Room 203
Woodland, CA  95695

Dear Mr. Rillera:

Yolo County's Notice of Preparation for the
Yolo County Airport Master Plan Program EIR/EA

The California Department of Transportation's Aeronautics Program has reviewed the above-referenced document with respect to CEQA. The following comments are offered for your consideration.

The proposal is for the development of a twenty year master plan for the Yolo County Airport. The key element of the proposed master plan is the staged enlargement of the airport's aircraft basing service area to accommodate forecast increases in based aircraft and operations and the possible addition of two fixed base operators at designated sites on the east side of the airport. The master plan will also include land and easement acquisitions for runway protection zones (RPZs) and for future approach lighting associated with an anticipated instrument approach capability. New aircraft parking aprons, apron expansion and a new, full-length parallel taxiway with connectors are also be included in the master plan.

Since the project includes plans to acquire land for RPZs, an amended airport permit may be required by the Aeronautics Program in accordance with the State Aeronautics Act (Public Utilities Code) Section 21664.5(a). For assistance in this matter, please contact the Caltrans Aviation Consultant for Yolo County, Mr. Jim Michel, at 916/654-5253. If an amended airport permit is required, then the Aeronautics Program would be a Responsible Agency. As such, we would require copies of the Draft and Final EIR/EA and the Notice of Determination once the project was approved. With respect to the content of the EIR/EA, airport-related noise and safety impacts should be thoroughly addressed.
Thank you for the opportunity to review and comment on this proposal. If you have any questions regarding our comments, please call me at 916/654-5314.

Sincerely,

Original signed by

SANDY HESNARD
Environmental Planner

cc: Keith Ott, Yolo County Airport
    Yolo County ALUC c/o SACOG
June 2, 1997

Mr. Larry Rillera, Manager
Parks and Facilities
Yolo County General Services Agency
625 Court Street, Room 203
Woodland, California 95695

Dear Mr. Rillera:

The Department of Fish and Game (DFG) has reviewed your Notice of Preparation of a Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the Yolo County Airport Master Plan. This Master Plan is to be implemented in three phases over a 20-year period. This plan proposes the following actions:

- Staged enlargement of the airport’s aircraft basing service area to accommodate forecast increases,
- Possible addition of two fixed base operators at designated sites on the east side of the airport,
- Land and easement acquisitions for runway protection zones and for future approach lighting,
- New aircraft parking aprons and apron expansion,
- and a new, full-length parallel taxiway with connectors.

The Yolo County Airport is located in the southeast corner of the intersection of County Roads 95 and 29 just northwest of the City of Davis in Yolo County.

The DFG is providing these comments as a Trustee Agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (California Environmental Quality Act Guidelines Section 15386 et seq.).
The DFG recommends that the Draft EIR address and mitigate the following concerns:

1. The project's impact upon wetlands. The subject lands should be surveyed for wetlands. All streams and wetlands should be identified and protected. If the proposed project unavoidably impacts wetlands, mitigation should be provided that is based on the concept of no-net-loss of wetland habitat values or acreage. Intermittent streams and swales should be protected by a 50-foot nonbuilding setback buffer established on each side of the stream.

2. The project's potential adverse impacts upon the burrowing owl (Speotyto cunicularia), a State-listed species of special concern. The project site should be surveyed for this owl. If found, mitigation measures should be provided in accordance with the enclosed DFG staff report on burrowing owl mitigation, dated 10/17/95 and/or the Yolo County Habitat Conservation Plan (HCP).

3. The project's potential adverse impacts upon nesting and foraging habitat for the Swainson's hawk (Buteo swainsoni), a State-listed threatened species. This species nested on this project site as late as 1993. Again mitigation measures should be provided in accordance with the DFG staff report regarding mitigation for impacts to Swainson's hawks, dated 11/1/94 (copy enclosed) and/or the Yolo County HCP.

4. The project's potential for growth-inducing and cumulative impacts upon the area's fish and/or wildlife values should be discussed and mitigated.

In order to comply with Public Resources Code Section 21081.6, a detailed monitoring program must be developed for all required mitigation conditions. The monitoring program should include the following:

1. Specific criteria to measure the effectiveness of mitigation.

2. Annual monitoring for a minimum of five years.

3. Annual monitoring reports (submitted to the lead agency and the DFG), each of which include corrective recommendations that shall be implemented in order to ensure that mitigation efforts are successful.
This project will have an impact to fish and/or wildlife habitat. Assessment of fees under Public Resources Code Section 21089 and as defined by Fish and Game Code Section 711.4 is necessary. Fees are payable by project applicant upon filing of the Notice of Determination by the lead agency.

The applicant should be advised that work consisting of but not limited to diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake, will require notification to the DFG as required by Fish and Game Code Section 1600 et seq. The notification (with fee), and subsequent agreement, must be completed prior to initiating any such work. Notification to the DFG should be made after the project is approved by the lead agency. The agreement process should not be used in lieu of specific mitigation measures to be included as conditions of project approval by the lead agency.

If the DFG can be of further assistance, please contact Mr. Roger Scoonover, Associate Wildlife Biologist, at (916) 666-3407.

Sincerely,

[Signature]
David S. Zezulak
Environmental Specialist IV, Supervisor

Enclosures (2)

cc: Mr. Roger Scoonover
Department of Fish and Game
Rancho Cordova, California
<table>
<thead>
<tr>
<th>Title:</th>
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<td>Type:</td>
<td>Notice of Prep-EIR</td>
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<tr>
<td>Location:</td>
<td>Airport County Road 29 &amp; County Road 95 Woodland, CA</td>
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<tr>
<td>Applicant:</td>
<td>Larry Killers</td>
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<tr>
<td>Date Received by E.H.:</td>
<td>May 5, 1997</td>
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Environmental Health has evaluated/reviewed the above referenced project proposal and would like to comment as follows:

- SEE MEMO -
MEMO

Date: June 4, 1997

To: Yolo County General Services Agency
   Attention: Larry Rillera

From: Paul W. Fitzmaurice, R.E.H.S.
      Supervising Environmental Health Specialist

Subject: Notice of Preparation - Yolo County Airport Master Plan

I have reviewed the Notice of Preparation of a Draft Environmental Impact Report/Environmental Assessment for the Airport Master Plan.

Our office wishes to comment as follows:

1. Water Supply - Our office regulates the water supply of the Airport as a Non-Transient/Non-Community Small Water System. Lack of a reliable, safe water supply at the Airport is a major concern of our office and should be fully explored when making long range plans for the Airport. Specific problem is persistent coliform problems with the existing well. A copy of the compliance codes is attached.

2. Sewage Disposal - Soils at the Airport are mostly very heavy clays and present limitation on disposal of any significant flows of domestic waste produced. Use of oxidation ponds as an alternative sewage disposal method is discouraged or prohibited due to a reported FAA policy. Long range development plans should explore long term sewage disposal solutions. I made contact with Sacramento County Metro Airport. They dispose of their wastewater through oxidation ponds and are planning on expansion. They will attempt to mitigate FAA concerns by using bird control measures at their ponds.

3. Camping - There has been numerous instances of illegal camping on the Airport property over the years resulting in increased demands on water and wastewater systems. Any allowed residential uses at the Airport need to be clearly noted. It is our policy that any residential uses requires water-sewer hookups.

Contact Paul W. Fitzmaurice, at (916) 666-8646, if we can further clarify this matter.
June 5, 1997

Mr. Larry Rillera  
Manager Parks & Facilities  
Yolo County General Services Agency  
625 Court St., Room 203  
Woodland, CA 95695

RE: Yolo County Airport Master Plan Program EIR/EA

Dear Mr. Rillera,

Please consider our comments to the above project. Relocation of PG&E facilities to comply with FAA regulations due to this plan will be at the applicants expense.

Please call me at 916-661-5651 if I can offer any assistance.

Sincerely,

BRIAN J. SWEENEY
Service Planning Supervisor

BJS:en

Enclosure
WEST PLAINFIELD FLOOD PROTECTION ASSOCIATION
C/- 24790 Country road 96
Davis
CA 95616
27th June 1997

re-EA/EIR - YOLO COUNTY AIRPORT MASTER PLAN

In response to your verbal request for written feedback on the positions of groups whose activities are affected by the Yolo County Airport master Plan the West Plainfield Food Protection Association would like to take this opportunity of documenting some views in support of actions contemplated to mitigate drainage problems caused by excessive run-off water from the Airport. These points arise largely from reports of the discussions on this subject at the June 13th meeting of the Technical Advisory Committee.

- Large areas of standing water on the airport that result from storm precipitation reduce the water that might otherwise drain into Airport Slough which lacks, currently, the necessary storm water drainage capacity.
- Improved drainage of the airport or increased run-off from the airport due to reduced percolation might be to the detriment of agricultural and business developments in the neighborhood, to the extent that flooding interrupts or dislocates these activities either by damage to the land or severance of road and other communications.
- The proposed extension of the storm water holding capacity of unused airport land would therefore be very beneficial to both airport and neighborhood. The calculation that the area east of the airport might be sufficient to hold the entire volume of a 100 year event suggests that this is a very significant benefit.
- Potential back flow of excess water into such a retention area could be an additional benefit to the neighborhood.
- Detailed estimates of the capacity and effects of any proposed modifications to existing drainage are needed to better substantiate these views and to quantify the mitigating effects of airport drainage changes on the adverse impact of reducing the permeable surface within the limits of the airport.
- Increased risk of surface water pollution by increased use of toxic or undesirable fuels and other chemicals may also require mitigation.

Thank you for your consideration of these views,

for L. Richerson, President
35750 Yellowstone Ave.
Davis
CA 95616
24th June 1997

Dear Mike McClintock,

I have tried, as requested, to put together in writing the essential elements of the points that I raised at the Technical Advisory committee meeting of 13th June 1997.

My principle concerns were with issues of Airport drainage. The problem, as I see it, is that the airport lies in a critical position of geographical impact on the local eastward drainage of storm waters in the West Plainfield area. Airport Slough flows south of the runway and acts as an overflow channel for Chickahominie Slough at high water levels, particularly, it is believed, because of the lack of clearing of the Chickahominie Slough. The airport is not currently adequately drained as evidenced by the effects of floods in 1995 and in 1997. Much of the airport area drains southwards into Airport Slough which already does not have needed capacity for storm water drainage. Flood water might impair the airport's safe operations and its capacity for any local or regional air based emergency aid efforts. Development of the airport will reduce permeability and increase run-off, exacerbating the current problems. Increase in run-off has the potential for causing damage to farming and residences outside the perimeter of the airport itself. The seriousness and balance of all these effects depend upon data and calculations that are not available to me, I believe that they need to be documented as part of making any assessment of the environmental impact of the airport on local and even regional storm water drainage.

The Airport Development Plan proposes rainwater containment on the airport in holding pondage to mitigate this impact to some, as yet undemonstrated extent. I believe that this retention system needs to be designed and implemented in such a way as to not add to the crestal flow of flood water through the neighborhood. Meeting this objective, if agreed, requires that the broad picture of the region's drainage, present and future, needs to be considered. I suggest a prudent approach is to plan drainage mitigation in as flexible way as possible. Perhaps this may mean playing a small role in reducing water drained into the system to the south which already lacks capacity. At minimum this would be a good neighbor policy,

Sincerely

[Signature]
APPENDIX C

GLOSSARY OF TERMS
USED IN AIRPORT PLANNING
APPENDIX C

GLOSSARY OF TERMS USED IN AIRPORT PLANNING

PREPARED FOR

YOLO COUNTY
GENERAL SERVICES AGENCY
AND
FEDERAL AVIATION ADMINISTRATION

YOLO COUNTY AIRPORT MASTER PLAN
ENVIRONMENTAL ASSESSMENT / IMPACT REPORT

MAY 2, 1998

PREPARED BY

P&D CONSULTANTS, INC.
OAKLAND, CALIFORNIA 94607
PREFACE

Many technical terms and expressions are used in airport planning and environmental studies. This glossary has been prepared for those persons who are or will be involved in reviewing the environmental impact report/environmental assessment for the Lompoc Airport Master Plan. The definitions were compiled from various sources including government publications such as Federal Aviation Administration (FAA) Advisory Circulars, FAA Orders and the professional literature.
GLOSSARY OF TERMS

A-WEIGHTED SOUND LEVEL (dBA) - The human ear does not respond equally to all sound frequencies. It is less efficient at low and high frequencies than it is at medium or speech-range frequencies. Thus, to obtain a single number representing the sound level of a noise having a wide range of frequencies in a manner representative of the ear's response, it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resultant sound level is said to be A-weighted, and the units are decibels (dB); hence, the abbreviation is dBA. The A-weighted sound level is also called the noise level. Sound level meters have an A-weighting network for measuring A-weighted sound level.

ABOVE GROUND LEVEL (AGL) - An elevation datum given in feet above ground level.

ABSORPTION - Absorption is a property of materials that reduces the amount of sound energy reflected. Thus, the introduction of an “absorbent” into the surfaces of a room will reduce the sound pressure level in that room because sound energy striking the room surfaces will not be totally reflected. The process of absorption is entirely different from that of transmission loss through a material, which determines how much sound enters a room via the walls, ceiling, and floor. The effect of absorption merely reduces the resultant sound level in the room produced by energy that has already entered the room.

AC - See ADVISORY CIRCULAR.

ACOUSTICS - (1) The science of sound, including the generation, transmission, and effects of sound waves both audible and inaudible; (2) The physical qualities of a room or other enclosure (such as size, shape, amount of noise) that determine the audibility and perception of speech and music.

ADT - See AVERAGE DAILY TRAFFIC.

ADVISORY CIRCULAR (AC) - A series of external FAA publications consisting of all non-regulatory material of a policy, guidance, and informational nature.

AFFECTED LOCAL GOVERNMENT AGENCIES - The local government agencies which have the authority to control land uses in areas that are adversely affected by aviation activities.

AGL - See ABOVE GROUND LEVEL.

AIP PROGRAM - See AIRPORT IMPROVEMENT PROGRAM.

AIR CARRIER - A legal entity who undertakes directly by lease or other arrangements, to engage in air transportation.

AIR CARRIER, CERTIFICATED ROUTE - An air carrier holding a Certificate of Public Convenience and Necessity, issued by the U.S. Department of Transportation under Part 121 of the Federal Aviation Regulations (FAR), to conduct scheduled services over specified routes and a limited amount of nonscheduled operations.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

AIR CARRIER, COMMUTER - An air taxi operator who, under FAR Part 135, (1) performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week, and places between which such flights are performed; or (2) transports mail by air pursuant to a contract with the U.S. Postal Service.

AIRCRAFT ACCIDENT - An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage.

AIRCRAFT PARKING LINE LIMIT (APL) - A line established by the airport authorities beyond which no part of a parked aircraft should protrude.

AIRFIELD CAPACITY (HOURLY) - The maximum number of aircraft operations (landings or takeoffs) that can take place on an airfield in one hour under specific conditions.

AIRPORT - An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities, if any.

AIRPORT ELEVATION - The highest point of an airport's usable runways, measured in feet above mean sea level.

AIRPORT ENVIRONS - The area surrounding an airport that is considered to be directly affected by the presence and operation of that airport.

AIRPORT HAZARD - Any structure or natural object located on or in the vicinity of a public airport, or any use of land near such airport, that obstructs the airspace required for the flight of aircraft landing, taking off, or taxiing at the airport.

AIRPORT IMPROVEMENT PROGRAM (AIP) - The AIP program is administered to provide financial grants-in-aid for airport development projects such as runways, taxiways, aircraft parking aprons, terminal buildings and land acquisition associated with airport development including runway protection zones and approach protection.

AIRPORT LAND USE COMMISSION (ALUC) - In California, a state-authorized body existing in each county having the responsibility to develop plans for achieving land use compatibility between airports and their environs.

AIRPORT LAND USE PLAN (ALUP) - In California, the formal plan, developed and adopted by an ALUC, setting forth criteria, policies and specifications for the preservation of long-term, land use compatibility between an airport and its environs.

AIRPORT LAYOUT PLAN - A plan (drawings) for an airport showing boundaries and proposed additions to all areas owned or controlled by the sponsor for airport purposes, the location and nature of existing and proposed airport facilities and structures, and the location on the airport of existing and proposed non-aviation areas and improvements thereon.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

AIRPORT MASTER PLAN - An assembly of appropriate documents and drawings covering the development of a specific airport from a physical, economic, social, and political jurisdictional perspective. The Airport Layout Plan is a part of this plan.

AIRPORT NOISE COMPATIBILITY PLANNING STUDY - A study designed to increase the compatibility of land and facilities in the areas surrounding an airport that are most directly affected by the operation of the airport. The specific purpose is to reduce the adverse effects of noise as much as possible by implementing both on-airport noise control measures and off-airport land use control programs. The basic products of an Airport Noise Compatibility Planning Study typically include:

1. workable on-airport noise abatement actions such as preferential runway use programs, new or preferential flight tracks, curfews, etc.;
2. off-airport land use control programs and regulations such as land acquisition, soundproofing, or special actions and programs; and
3. policies and procedures related to the implementation of on-airport and off-airport programs.

A community involvement program is usually carried on throughout all phases of the study. Conduct of such studies are eligible for federal funding participation. (Also see FAR Part 150.)

AIRPORT PROPRIETOR - Owner of an airport or other party having authority to control airport operations. In California, the holder of an airport permit issued by the Department of Transportation, Division of Aeronautics pursuant to Article 3, Chapter 4, Part 1, Division 9, Public Utilities Code.

AIRPORT RADAR SERVICE AREA (ARSA) - Regulatory airspace surrounding designated airports wherein FAA Air Traffic Control provides radar vectoring and sequencing on a full-time basis for all IFR and VFR aircraft. As of September 1993, the term ARSA has been replaced by the term Class C Airspace.

AIRPORT REFERENCE POINT - A point established on an airport, having an equal relationship to all existing and proposed landing and takeoff areas, and used to geographically locate the airport for other planning purposes.

AIRPORT SPONSOR - A public agency or tax-supported organization, such as an airport authority, that is authorized to own and operate an airport, to obtain property interests, to obtain funds, and to be legally, financially, and otherwise able to meet all applicable requirements of the current laws and regulations.

AIRPORT SURVEILLANCE RADAR (ASR) - Approach control radar used to detect and display an aircraft's position in the terminal area. ASR provides range and azimuth information but does not provide elevation data. Coverage of the ASR can extend up to 60 miles.

AIRPORT TRAFFIC AREA - Unless otherwise specifically designated in FAR Part 93, that airspace within a horizontal radius of 5 statute miles from the geographical center of any airport at which a control tower is operating, extending from the surface up to, but not including, an altitude of 3,000 feet above the elevation of an airport. Unless otherwise authorized by ATC, no person may operate an aircraft within an airport traffic area except for the purpose of landing at
or taking off from an airport within that area. ATC authorizations may be given as individual approval of specific operations or may be contained in written agreements between airport users and the tower concerned.

AIRPORT TRAFFIC CONTROL TOWER (ATCT) - A terminal facility that uses air-to-ground communications, visual signaling, and other devices to provide ATC services to aircraft operating in the vicinity of an airport or on the movement area.

AIR ROUTE SURVEILLANCE RADAR (ARSR) - Air route traffic control center (ARTCC) radar used primarily to detect an aircraft's position which en route between terminal areas, enabling controllers to provide radar air traffic control service when aircraft are within the ARSR coverage.

AIR ROUTE TRAFFIC CONTROL CENTER (ARTCC) - An FAA facility established to provide air traffic control service to aircraft operating on an instrument flight rule (IFR) flight plan within controlled airspace and principally during the en route phase of flight.

AIR TAXI - Operations performed by operators of aircraft holding an air taxi certificate under Part 135 of the Federal Aviation Regulations. This category includes commuter airline operations (excluding certificated commuter airlines), mail carriers under contract with the U.S. Postal Service, and operators of nonscheduled air taxi services. Typically, air taxis do not utilize aircraft with a payload capacity over 7,500 pounds or capable of carrying more than 30 passengers.

AIR TRAFFIC - Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.

AIR TRAFFIC CLEARANCE/ATC CLEARANCE - An authorization by air traffic control, for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within controlled airspace.

AIR TRAFFIC CONTROL (ATC) - A service operated by appropriate authority (the FAA) to promote the safe, orderly, and expeditious flow of air traffic.

AIRWAY/FEDERAL AIRWAY - A control area or portion thereof established in the form of a corridor, the centerline of which is defined by radio navigational aids.

ALERT AREA - A special use airspace which may contain a high volume of pilot training activities or an unusual type of aerial activity, neither or which is hazardous to aircraft.

ALTIMETER - The height of a level, point, or object measured in feet Above Ground Level (AGL) or from Mean Sea Level (MSL).

ALUC - See AIRPORT LAND USE COMMISSION.

ALUP - See AIRPORT LAND USE PLAN.

AMBIENT NOISE - The total of all noise in a system or situation, independent of the presence of the specific sound to be measured. In acoustical measurements, strictly speaking, ambient
noise means electrical noise in the measurement system. However, in popular usage ambient noise means is also used with the same meaning as "background noise" or "residual noise."

**APPROACH CLEARANCE** - Authorization by ATC for a pilot to conduct an instrument approach at an airport with appropriate facilities.

**APPROACH LIGHT SYSTEM (ALS)** - An airport lighting system which provides visual guidance enabling a pilot to align the aircraft with the extended runway centerline during final approach to landing.

**APPROACH SPEED** - The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration.

**APRON/RAMP** - A defined area on an airport or heliport intended to accommodate aircraft for purposes of loading passengers or cargo, refueling, parking, or maintenance.

**ARSR** - See **AIR ROUTE SURVEILLANCE RADAR**.

**ARTCC** - See **AIR ROUTE TRAFFIC CONTROL CENTER**.

**ASNA** - See **AVIATION SAFETY AND NOISE ABATEMENT ACT OF 1979**.

**ASR** - See **AIRPORT SURVEILLANCE RADAR**.

**ATC** - See **AIR TRAFFIC CONTROL**.

**ATIS** - See **AUTOMATIC TERMINAL INFORMATION SERVICE**.

**AUTOMATED WEATHER OBSERVING SYSTEM (AWOS)** - Airport electronic equipment which automatically measures meteorological parameters, reduces and analyzes the data via computer, and broadcasts weather information which can be received on aircraft radios.

**AUTOMATIC TERMINAL INFORMATION SERVICE (ATIS)** - The continuous broadcast of recorded non-control information in selected terminal areas.

**AVERAGE DAILY TRAFFIC (ADT)** - An expression of traffic volume, ADT means the average number of vehicles per day that pass over a given point.

**AVIATION SAFETY AND NOISE ABATEMENT ACT OF 1979 (ASNA)** - Public Law 96-193, enacted February 18, 1980. The purpose of the Act is to provide assistance to airports in preparing and carrying out noise compatibility programs and in assuring continued safety for aviation. The Act also contains provisions that extend, until January 1, 1988, the requirement for certain types of aircraft to comply with Part 36 of the Federal Aviation Regulations (see also FAR Part 36 and FAR Part 150). Funding for the noise studies has been appropriated by the U.S. Congress and has commenced in 1983. Funding for program implementation, including acquisition and soundproofing of affected residences, has been approved by FAA and is being implemented at several U.S. airports.
AVIGATION EASEMENT - A type of land acquisition that involves less-than-fee purchase (see also LESS-TAN-FEE ACQUISITION). One form of avigation easement grants an airport the right to perform aircraft operations over the designated property, including operations that might cause noise, vibration, and other effects. A stronger form of easement is a deed restriction that may include (1) the right to perform aircraft operations of the property, and (2) public acquisition of a landowner's rights restricting future development of the property for any use more intensive than that existing at the time of the transaction. This easement may also include specific prohibitions on the uses for which the property may be developed. Maximum heights of structures and other objects may also be specified.

AZIMUTH - Horizontal direction or bearing; usually measured from the reference point of 0 degrees clockwise through 360 degrees.

BACKCOURSE APPROACH - A non-precision instrument approach utilizing the rearward projection of the ILS localizer beam.

BACKGROUND NOISE - See AMBIENT NOISE.

BAFFLE - A baffle is a shielding structure or series of partitions used to increase the effective length of the external transmission path between two points in an acoustic system. For example, baffles may be used in sound traps (as in air conditioning ducts) or in automotive mufflers to decrease the sound transmitted while affording a path for air flow.

BASED AIRCRAFT - Aircraft stationed at an airport on a long-term basis.

BASE LEG - A flight path at right angles to the landing runway off its approach end. The base leg normally extends from the downwind leg to the intersection of the extended runway centerline.

BLAST PAD - A paved area, of runway width, extending beyond the runway takeoff threshold for a sufficient distance (typically 150 to 300 feet) to prevent soil erosion caused by jet engine backblast.

BUILDING CODE - A legal document that sets forth requirements to protect the public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures. The code establishes the minimum acceptable conditions for matters found to be in need of regulation. Topics generally covered are exits, fire protection, structural design, sanitary facilities, light, and ventilation. Sound insulation may also be included.

BUILDING RESTRICTION LINE (BRL) - A line established with respect to the runway centerline to assure that structures will not project above the imaginary surfaces required by Federal Aviation Regulations, Part 77, "Obstruction Clearance Criteria," (FAR Part 77).

CBD - Central Business District.

CEILING - Height above the earth's surface to the lowest layer of clouds or obscuring phenomena.

CEQ - See COUNCIL ON ENVIRONMENTAL QUALITY.
CEQ 1500 - Regulations of the Federal Council on Environmental Quality (CEQ) for implementing the procedural provisions of the National Environmental Policy Act (NEPA).

CERTIFICATED ROUTE AIR CARRIER - See AIR CARRIER, CERTIFICATED ROUTE.

CIRCLING APPROACH/CIRCLE-TO-LAND MANEUVER - A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable.

CLEAR ZONE - See RUNWAY PROTECTION ZONE.

CLEARWAY - For turbine engine powered airplanes certificated after August 29, 1959, an area beyond the runway, not less than 500 feet wide, centrally located about the extended centerline of the runway, and under the control of the airport authorities. The clearway is expressed in terms of clearway plane, extending from the end of the runway with an upward slope not exceeding 1.25 percent, above which no object nor any terrain protrudes. However, threshold lights may protrude above the plane if their height above the end of the runway is 26 inches or less and if they are located to each side of the runway.

CNEL - See COMMUNITY NOISE EQUIVALENT LEVEL.

COMPASS LOCATOR - A low power, low or medium frequency radio beacon installed at the site of the outer or middle marker of an Instrument landing system (ILS).

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) - A method of predicting, by a single number rating, cumulative aircraft noise that affects communities in airport environs. As defined in the California Airport Noise Standards, CNEL represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period. Weighting factors equivalent to penalties of about five decibels and ten decibels are applied to operations conducted from 7:00 pm to 10:00 pm and from 10:00 pm to 7:00 am, respectively, to account for increased sensitivity during those periods.

COMMUTER AIR CARRIER - See AIR CARRIER, COMMUTER.

COMPREHENSIVE LAND USE PLAN (CLUP) - See ALUP.

COMPUTER MODELING - An analytical process which employs an electronic digital computer to perform difficult, laborious calculations involving mathematical functions or formulas. Computation of cumulative noise exposure (Ldn or CNEL) contours requires the use of computer modelling in order to process enormous quantities of data concerning aircraft traffic, performance and operating procedures.

CONTROLLED AIRSPACE - Any of several types of airspace within which some or all aircraft may be subject to air traffic control.

COUNCIL ON ENVIRONMENTAL QUALITY (CEQ) - Established by the National Environmental Policy Act (NEPA) of 1969, the Council is composed of three members...
appointed by the President. A major purpose of the Council is to formulate and recommend national policies to promote the improvement of environmental quality.

**DATA BASE** - A computer file (or set of files) containing a field of related numerical information (data) for use in automated analysis or processing. A computerized "land use data base" is a computer file containing the coordinates, dimensions and areas of all individual land use polygons which comprise the pattern of land use within a specific geographic area.

**DAY-NIGHT AVERAGE SOUND LEVEL (Ldn)** - A method for predicting, by a single number rating, cumulative aircraft noise that affects communities in airport environs. The Ldn value represents decibels of noise as measured by an A-weighted sound-level meter (see also). In the Ldn procedure, the noise exposure from each aircraft takeoff or landing at ground level around an airport is calculated, and these noise exposures are accumulated for a typical 24-hour period. (The 24-hour period often used is the average day of the year being analyzed.) Daytime and nighttime noise exposures are considered separately. A weighting factor equivalent to a penalty of 10 decibels is applied to operations between 10:00 pm and 7:00 am to account for the increased sensitivity of people to nighttime noise. The Ldn values can be expressed graphically on maps using contours of equal noise exposure. Ldn may also be used for measuring other noise sources, such as automobile traffic, to determine combined noise effects.

**dB** - See DECIBEL.

**DEREGULATION ACT** - Airline regulatory reform act of 1978. Designed, among other things, to encourage competition among domestic air carriers, the Act allows an air carrier greater freedom to enter and leave any given market.

**DEVELOPMENT RIGHTS** - Rights of landowners to develop a parcel of land according to the zoning of that parcel. Land is often assessed on a combination of its "resource" value and its "commodity" value. The resource value is the value of the property in its natural state; the commodity value is an artificial value placed on it by the marketplace - that is, its value for development purposes. In less-than-fee acquisition (see also), the airport sponsor purchases only the development rights; the ownership of the land remains unchanged.

**DIGITIZE** - A mechanical-electronic process whereby the locations, sizes and identities of individual polygons, noise contours or other physical features are translated into a set of numerical data within a computer data file or data base for subsequent automated analysis, sorting or manipulation.

**DISPLACED THRESHOLD** - A runway landing threshold that is located at a point other than the designated beginning of the runway (where departures would begin).

**DISTANCE MEASURING EQUIPMENT (DME)** - Equipment (airborne and ground) used to measure, in nautical miles, the slant range distance of an aircraft from the DME navigational aid.

**DME** - See DISTANCE MEASURING EQUIPMENT.
DOWNWIND LEG - A flight path parallel to the landing runway in the direction opposite the landing direction.

DURATION - Length of time, in seconds, a noise event such as an aircraft flyover is experienced. (May refer to the length of time a noise event exceeds a specified threshold level.)

EA - See ENVIRONMENTAL ASSESSMENT.

EFFECTS - See IMPACT.

ENGINE RUN-UP AREA - An area on an airport where aircraft engines are serviced or tested. The noise from such servicing or testing can affect neighborhoods adjacent to the airport.

ENVIRONMENTAL ASSESSMENT (EA) - An assessment of the environmental effects of a proposed action for which federal financial assistance is being requested or for which federal authorization is required. The EA serves as the basis for the FAA's Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI), as specified in FAA Orders 1050.1D and 5050.4.

ENVIRONMENTAL IMPACT STATEMENT (EIS) - A document prepared under the requirements of the National Environmental Policy Act of 1969 (NEPA), Section 102(2)(c). The EIS represents a federal agency's evaluation of the effect of a proposed action on the environment. New regulations relating to the preparation of an EIS are published in FAA Orders 1050.1D and 5050.4.

ENPLANED/DEPLANED PASSENGERS - The volume of passengers outbound from an airport (enplaned) or inbound to an airport (deplaned). The annual passenger volume of an airport is the total of enplaned and deplaned passengers.

EPA - The U.S. Environmental Protection Agency.

FAA - See FEDERAL AVIATION ADMINISTRATION.

FAA NOISE POLICY - The Aviation Noise Abatement Policy of the Department of Transportation, Federal Aviation Administration issued on November 18, 1976. The policy outlines the responsibilities and actions that may be taken to reduce adverse effects of aviation-related noise.

FAA ORDER - An internal FAA directive which sets standards, procedures and guidelines for FAA execution of its various regulatory and grant administration mandates.

FAA ORDER 1050.1D - An order published by the FAA, dated December 21, 1983, entitled "Policies and Procedures for Considering Environmental Impacts." This order was prepared in response to the CEQ 1500 Regulations.

FAA ORDER 5050.4A - This document, entitled "Airport Environmental Handbook," was revised by the FAA on October 8, 1985. It contains all of the essential information an airport sponsor needs to meet both procedural and substantive environmental requirements, including relevant text from Order 1050.1D.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

FAR PART 36 - Federal Aviation Regulations, Part 36. Establishes noise standards for the civil aviation fleet. Some extensions for compliance are included in the Aviation Safety and Noise Abatement Act of 1979 (see also).

FAR PART 77 - Federal Aviation Regulations, Part 77. Establishes standards for identifying obstructions to aircraft in navigable airspace.

FAR PART 77 SURFACES - Imaginary surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary, (2) approach, (3) transitional, (4) horizontal, and (5) conical.

FAR PARTS 121 AND 135 - The parts of Federal Aviation Regulations that deal with certification and operational requirements for commercial operators of large aircraft and air taxis, respectively.


FEDERAL AVIATION ADMINISTRATION - The FAA is the agency of the U.S. Department of Transportation that is charged with (1) regulating air commerce to promote its safety and development; (2) achieving the efficient use of navigable airspace of the United States; (3) promoting, encouraging, and developing civil aviation; (4) developing and operating a common system of air traffic control and air navigation for both civilian and military aircraft; and (5) promoting the development of a national system of airports.

FEE-SIMPLE LAND ACQUISITION (PURCHASE) - The full purchase by the airport sponsor of land and improvements. The land is usually maintained for airport purposes or leased for uses that are compatible with airport operations. Alternatively, the airport sponsor can resell the land with an aviation easement (see also) and deed restrictions that specify the compatible land uses that are permitted. The resale option has the benefit that the land is returned to the tax rolls.

FINDING OF NO SIGNIFICANT IMPACT (FONSI) - An administrative determination by the FAA that a proposed action by the airport sponsor will have no significant impact (on the environment). Specific guidelines for the preparation of a FONSI report (see EA) are included in FAA Orders 1050.1D and 5050.4A.

FIXED BASE OPERATOR (FBO) - A business operating at an airport that provides aircraft services to the general public, including but not limited to sale of fuel and oil; aircraft sales, rental, maintenance and repair; parking and tie down or storage of aircraft; flight instruction; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists or pipeline patrol.
FLIGHT SERVICE STATION - FAA facilities which provide pilot briefings on weather, airports, altitudes, routes, and other flight planning information.

FONSI - See FINDING OF NO SIGNIFICANT IMPACT.

GENERAL AVIATION - Operations performed by all civil aircraft not classified as air carrier or air taxi aircraft.

GENERAL AVIATION (GA) - All civil aviation except that classified as air carrier or air taxi. The types of aircraft typically used in general aviation activities vary from multi-engine jet aircraft to single-engine piston aircraft.

GLIDE SLOPE - An electronic signal radiated by a component of an ILS to provide descent path guidance to approaching aircraft.

GLOBAL POSITIONING SATELLITE SYSTEM (GPS) - A navigational system utilizing satellites to provide nonprecision guidance in azimuth, elevation, and distance measurement.

HELICOPTER - Rotorcraft that, for its horizontal motion, depends principally on its engine-driven rotors.

HELIPAD - A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters.

HUD - The U.S. Department of Housing and Urban Development.

IFR - See INSTRUMENT FLIGHT RULES.

IFR CONDITIONS - Weather conditions that require aircraft to be operated in accordance with instrument flight rules.

IFR MINIMUMS AND DEPARTURE PROCEDURES (FAR PART 91) - Prescribed takeoff rules. For some airports, obstructions or other factors require the establishment of nonstandard takeoff minimums or departure procedures, or both. Both may be required to assist pilots in avoiding obstacles during climb to the minimum en-route altitude.

ILS - See INSTRUMENT LANDING SYSTEM.

IMPACT - In environmental and noise control studies, the word "impact" is used to express the extent or severity of an environmental problem, e.g., the number of persons exposed to a given noise environment. As indicted in CEQ 1500 (Section 1508.8), impacts and effects are considered to be synonymous. Effects or impacts may be ecological, aesthetic, historic, cultural, economic, social, or health related, and they may be direct, indirect, or cumulative.

IMPACT INSULATION CLASS (IIC) - A single-figure rating that is intended to permit comparisons of the sound-insulating merits of floor-ceiling assemblies in terms of a reference contour.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

INCOMPATIBLE LAND USE - Residential, public, recreational and certain other noise-sensitive land uses which are designated as unacceptable within specific ranges of cumulative (Ldn) noise exposure as set forth in Table 2 of Appendix A of FAR Part 150.

INSTRUMENT APPROACH PROCEDURE - A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority.

INSTRUMENT FLIGHT RULES (IFR) - Rules specified by the FAA for flight under weather conditions in which visual reference cannot be made to the ground and the pilot must rely on instruments to fly and navigate.

INSTRUMENT LANDING SYSTEM (ILS) - An electronic system which provides the aircraft with lateral, longitudinal and vertical guidance necessary for an instrument landing.

INSTRUMENT OPERATION - An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility.

INSTRUMENT RUNWAY - A runway equipped with electronic and visual navigation aids for which a precision or non-precision approach procedure having straight-in landing minima has been approved.

ITINERANT OPERATION - An arrival or departure performed by an aircraft from or to a point beyond the local airport area.

LAND USE COMPATIBILITY - The compatibility of land uses surrounding an airport with airport activities and particularly with the noise from aircraft operations.

LAND USE COMPATIBILITY ASSURANCE - Documentation provided by an airport sponsor to the FAA. The documentation is related to an application for an airport development grant. Its purpose is to assure that a reasonably appropriate action, including the adoption of zoning laws, has been taken or will be taken to restrict the use of land adjacent to the airport or in the immediate vicinity of the airport. Such uses are limited to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft. This assurance is required of airport sponsors by Section 511 (a) (5) of the Airport and Airway Improvement Act of 1981. (Also see AIP Program.)

LAND USE CONTROLS - Controls established by local or state governments to carry out land use planning. The controls include zoning, subdivision regulations, land acquisition (in fee simple, lease-back, or easements), building codes, building permits, and capital improvement programs (or provide sewer, water, utilities, or other service facilities).

LAND USE PLANNING - Comprehensive planning carried out by units of local government, for all areas under their jurisdiction, to identify the optimum uses of land and to serve as a basis for the adoption of zoning or other land use controls.

LARGE AIRCRAFT - An aircraft of more than 12,500 pounds maximum certificated takeoff weight.
Ldn - See DAY-NIGHT AVERAGE SOUND LEVEL.

LEAD AGENCY - In California, the public agency which has the principal responsibility for carrying-out or approving a project. The Lead Agency will decide whether an EIR or Negative Declaration will be required for the project and will cause the document to be prepared. Criteria for determining which agency will be the Lead Agency for a project are contained in Section 15051 of the CEQA guidelines.

LESS-THAN-FEE ACQUISITION (PURCHASE) - The purchase of development rights (see also) from landowners by airport sponsors in areas that should remain at very low densities or in open space uses. The airport sponsor negotiates with the landowner to determine the fair market value of the unused development rights. Once sold, the land cannot be developed except in specified ways. (See also FEE-SIMPLE in LAND ACQUISITION.)

LOC - See LOCALIZER.

LOCAL AGENCY - In California, any public agency other than a state agency, board, or commission. "Local Agency" includes but is not limited to cities, counties, charter cities and counties, districts, school districts, special districts, redevelopment agencies, local agency formation commissions, and any board, commission, or organizational subdivision of a local agency when so designated by order or resolution of the governing legislative body of the local agency.

LOCAL OPERATION - An aircraft operation which remains no more than 25 nautical miles from the departure point, or which terminates at the point of departure, or which does not include a stop of a greater duration than 15 minutes. Touch-and-go operations are local operations.

LOCALIZER (LOC) - The component of an ILS which provides horizontal course guidance to the runway.

LOCALIZER TYPE DIRECTIONAL AID (LDA) - A NAVAID used for non-precision instrument approaches with utility and accuracy comparable to a localizer, but which is not part of a complete ILS and is not aligned with the runway.

LOUDNESS - The judgment of the intensity of a sound by a person. Loudness depends primarily on the sound pressure of the stimulus. Over much of the loudness range it takes about a tenfold increase in sound pressure (approximately 10 decibels) to produce a doubling of loudness.

MAJOR AIRPORT DEVELOPMENT - Airport development of such a scale as to require shifts in patterns of population movement and growth, public service demands, and changes in business and economic activity.

MARKER BEACON - The component of an ILS which informs pilots that they are at a significant point on the approach course.
MASKING - The action of making one sound (audible when heard alone) inaudible or unintelligible by the introduction of another sound. The masking is most marked when the masked sound is of higher frequency than the masking sound.

MEAN SEA LEVEL (MSL) - An elevation datum given in feet above mean sea level.

MICROWAVE LANDING SYSTEM (MLS) - An advanced electronic system of ground-based devices and aircraft avionics which provides the aircraft with lateral, longitudinal and vertical guidance necessary for an instrument landing. In the U.S., MLS technology has been supplanted by GPS (which see).

MILITARY - Operations performed by military groups, such as the Air National Guard, the U.S. Air Force, U.S. Army, U.S. Marine Corps, or the U.S. Navy.

MILITARY OPERATIONS AREA (MOA) - A type of special use airspace established to separate certain military activities from IFR traffic and to identify for VFR traffic where these activities are conducted.

MINIMUM DESCENT ALTITUDE (MDA) - The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided.

MISSED APPROACH - A maneuver conducted by a pilot when an instrument approach to a landing cannot be completed.

MITIGATION MEASURE - An action that can be planned or taken to alleviate (mitigate) an adverse environmental impact. As set forth in CEQ 1500 (Section 1506.20), "mitigation" includes:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action.
(b) Minimizing the impact by limiting the degree or magnitude of the action and its implementation.
(c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
(e) Compensating for the impact by replacing or providing substitute resources or environments.

A proposed airport development project, or alternatives to that project, may constitute a mitigation measure as defined by the CEQ.

MLS - See MICROWAVE LANDING SYSTEM.

NATIONAL AIRSPACE SYSTEM/NAS - The common network of U.S. airspace; air navigation facilities, equipment and services, airports or landing areas; aeronautical charts, information
and services; rules, regulations and procedures, technical information, and manpower and material. Included are system components shared jointly with the military.

NAVAID - See NAVIGATIONAL AID.

NAVIGATIONAL AID (NAVAID) - Any visual or electronic device (airborne or on the ground) that provides point-to-point guidance information or position data to pilots of aircraft in flight.


NOISE - Any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying.

NOISE ABATEMENT PROCEDURES - Changes in operational procedures affecting runway use, in flight approach and departure routes and procedures, and in other air traffic procedures that are made to shift adverse aviation effects away from noise-sensitive areas (such as residential neighborhoods).

NOISE ATTENUATION OF BUILDINGS - The use of building materials to reduce noise through absorption, transmission loss, and reflection of sound energy.

NOISE COMPLAINT - A recorded complaint concerning aircraft noise made by an individual and kept on file at an airport.

NOISE CONTOURS - Lines drawn on a map that connect points of equal noise exposure (Ldn or CNEI) values. They are usually drawn in 5-dB intervals, such as Ldn 75 dB values, Ldn 70 dB values, Ldn 65 dB values, and so forth.

NOISE CONTROL PLANS - Documentation by the airport sponsor of actions to be taken by the sponsor to reduce the effect of aviation noise. These actions are to be taken by the sponsor either alone or in cooperation with the FAA, airport users, and affected units of local government, with appropriate comments from affected citizens. Alternative actions should be considered, particularly where proprietary use restrictions (see also) on aircraft operations are involved.

NOISE LEVEL REDUCTION (NLR) - The noise reduction between indoor and outdoor environments of two rooms is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

NOISE-SENSITIVE LAND USE - Land uses that can be adversely affected by high levels of aircraft noise. Residences, schools, hospitals, religious facilities, libraries, and other similar uses are often considered to be sensitive to noise.

NONCOMPATIBLE LAND USE - See INCOMPATIBLE LAND USE.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

NONDIRECTIONAL BEACON (NDB) - A radio beacon transmitting nondirectional signals whereby the pilot of an aircraft equipped with direction finding equipment can determine his bearing to or from the radio beacon and "home" on or track to or from the station.

NONPRECISION APPROACH PROCEDURE - A standard instrument approach procedure in which no electronic glide slope is provided, such as VOR, GPS, or LOC (which see).

NONPRECISION INSTRUMENT RUNWAY - A runway with an instrument approach procedure utilizing air navigation facilities, with only horizontal guidance, or area-type navigation equipment for which a straight-in non-precision instrument approach procedure has been approved or planned, and no precision approach facility or procedure is planned.

OBSTACLE - An existing object, object of natural growth, or terrain, at a fixed geographical location, or which may be expected at a fixed location within a prescribed area, with reference to which vertical clearance is or must be provided during flight operation.

OBSTACLE FREE ZONE (OFZ) - A volume of space above and adjacent to a runway and its approach lighting system if one exists, free of all fixed objects except FAA-approved frangible aeronautical equipment and clear of vehicles and aircraft in the proximity of an airplane conducting an approach, missed approach, landing, takeoff, or departure.

OBSTRUCTION - An object that exceeds a limiting height or penetrates an imaginary surface described by current Federal Aviation Regulations (Part 77).

OPERATION - A take-off or a landing.

ORDER - See FAA ORDER.

OUTER MARKER - A marker beacon at or near the glide slope intercept position of an ILS approach.

POLYGON - An irregular geometric figure, encoded into a computer data base, coincident with the physical conterminous boundaries of a single land use category. Individual polygons are encoded into a computer data base using a process termed "digitizing."

PRECISION APPROACH PATH INDICATOR (PAPI) - An airport landing aid similar to a VASI, but which has light units installed in a single row rather than two rows.

PRECISION INSTRUMENT PROCEDURE - A standard instrument procedure for an aircraft to approach an airport in which an electronic glide slope is provided, e.g., an instrument landing system (ILS) or military precision approach radar.

PRECISION INSTRUMENT RUNWAY - A runway with an instrument approach procedure utilizing an instrument landing system (ILS), microwave landing system (MLS), precision approach radar (PAR), or GPS.

PREFERENTIAL RUNWAY USE (PROGRAM) - A noise abatement action whereby the FAA Air Traffic Division, in conjunction with the FAA Airports Division, assists the airport sponsor in
developing a program that gives preference to the use of a specific runway(s) to reduce overflight of noise-sensitive areas.

**PROPRIETARY USE RESTRICTIONS** - Restrictions by an airport sponsor on the number, type, class, manner, or time of aircraft operations at the airport. The imposition of a curfew is an example of a proprietary use restriction.

**PUBLIC AGENCY** - In California, includes any state agency, board, or commission and any local or regional agency, as defined in the CEQA guidelines. It does not include the courts of the state. The term does not include agencies of the federal government.

**RADAR APPROACH CONTROL FACILITY** - A terminal ATC facility that uses radar and non-radar capabilities to provide approach control services to aircraft arriving, departing, or transiting airspace controlled by the facility. Provides radar ATC services to aircraft operating in the vicinity of one or more civil and/or military airports in a terminal area. Specific facility nomenclatures are used for administrative purposes only and are related to the physical location of the facility and the operating service generally as follows:

- Army Radar Approach Control/ARAC (Army)
- Radar Air Traffic Control Facility/RATCF (Navy/FAA)
- Radar Approach Control/RAPCON (Air Force/FAA)
- Terminal Radar Approach Control/TRACON (FAA)
- Tower/Airport Traffic Control Tower/ATCT (FAA) [only those towers delegated approach control authority].

**RELIEVER AIRPORT** - An airport serving general aviation aircraft that might otherwise use a congested air carrier airport.

**RESPONSIBLE AGENCY** - In California, a public agency which proposed to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project.

**RESTRICTED AREA** - Designated airspace within which the flight of aircraft, while not wholly prohibited, is subject to restriction.

**RETROFIT** - The retroactive modification of existing jet aircraft engines for noise abatement purposes.

**RUNWAY PROTECTION ZONE** - A trapezoidal area at ground level whose perimeter conforms to the projection on the ground of the innermost portion of the Approach Surface as defined in FAR Part 77. The runway protection zone is centered on the extended runway centerline and begins at the end of the FAR Part 77 Primary Surface, terminating below the line where the Approach Surface reaches a height of 50 feet above the elevation of the runway end. FAA regulations require that runway protection zones be kept free of obstructions and any uses which cause an assemblage of persons.

**RUNWAY EDGE LIGHTS** - Lights used to define the lateral limits of a runway.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

RUNWAY END IDENTIFIER LIGHTS (REILs) - Two synchronized flashing lights, one on each side of the runway threshold, which provide a pilot with a rapid and positive visual identification of the approach end of a particular runway.

RUNWAY SAFETY AREA - A cleared, drained, graded, and preferably turfed area symmetrically located about the runway which, under normal conditions, is capable of supporting snow removal, fire fighting, and rescue equipment and of accommodating the occasional passage of aircraft without causing major damage to the aircraft.

RUNWAY THRESHOLD - The beginning of that portion of a runway usable for landing or takeoff. (See also DISPLACED Threshold.)

RUNWAY USE PROGRAM - See PREFERENTIAL RUNWAY USE PROGRAM.

SEVERE NOISE EXPOSURE - Exposure to aircraft noise that is likely to interfere with human activity in noise-sensitive areas; repeated vigorous complaints can be expected and group action is probable. This exposure may be specified by a cumulative noise descriptor as a level of noise exposure, such as the Ldn (or CNEL) 75 dB level. (See also SIGNIFICANT NOISE EXPOSURE.)

SHIELDING - The attenuation of a sound by placing walls, buildings, plants, or other barriers between a sound source and the receiver.

SIGNIFICANT NOISE EXPOSURE - Exposure to aircraft noise that is likely to interfere with human activity in noise-sensitive areas; individual complaints may be expected and group action is possible. This exposure may be specified by a cumulative noise descriptor as a level of noise exposure, such as the Ldn (or CNEL) 65 dB level. (See also SEVERE NOISE EXPOSURE.)

SOUND INSULATION - (1) The use of structures and materials designed to reduce the transmission of sound from one room or area to another, or from the exterior to the interior of a building, (2) the degree of reduction in sound transmission by means of sound insulating structures and materials.

SOUND LEVEL (NOISE LEVEL) - The weighted sound pressure level obtained by the use of a sound level meter having a standard frequency filter for attenuating or accentuating part of the sound spectrum.

SOUND LEVEL METER - An instrument, comprising a microphone, an amplifier, an output meter, and frequency weighting networks, that is used to measure noise and sound levels in a specified manner.

SOUND TRANSMISSION CLASS (STC) - The preferred single figure rating system designed to give an estimate of the sound insulation properties of a partition or a rank ordering of a series of partitions. It is intended for use primarily when speech and office noise constitute the principal noise problem.

SOUND TRANSMISSION LOSS - A measure in decibels of sound insulation provided by a structural configuration.
SPECIAL USE AIRSPACE - Airspace of defined horizontal and vertical dimensions wherein activities must be confined because of their nature and/or wherein limitations may be imposed upon aircraft operations that are not a part of those activities.

STANDARD - A specific statement by an authority of permitted environmental conditions.

STANDARD INSTRUMENT DEPARTURE (SID) - A pre-planned instrument flight rules (IFR) air traffic control departure procedure printed for pilot use in graphic and/or textual form. SIDs provide transition from the terminal to the appropriate en route structure.

STANDARD TERMINAL ARRIVAL ROUTE (STAR) - A pre-planned instrument flight rules (IFR) air traffic control arrival route published for pilot use in graphic and/or textual form. STARs provide transition from the en route structure to an outer fix or an instrument approach fix/arrival waypoint in the terminal area.

STOPWAY - An area beyond the takeoff runway, no less wide than the runway and centered upon the extended centerline of the runway, able to support the aircraft during an aborted takeoff, without causing structural damage to the aircraft, and designated by the airport authorities for use in decelerating the aircraft during an aborted takeoff.

STRAIGHT-IN INSTRUMENT APPROACH - An instrument approach wherein final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minima.

SUBDIVISION REGULATIONS (ORDINANCE) - Regulations promulgated by local governments to guide development in defined ways and by prescribed methods to control the use of private land in the public interest. Subdivision regulations were initially established to prevent (1) the uncontrolled subdivisions of land that often left communities without adequate streets, water mains, or sewers, and (2) disorderly, chaotic growth - urban sprawl.

TAXILANE - The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc.

TAXIWAY - A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft.

TERMINAL AIRSPACE - See TERMINAL AREA.

TERMINAL AREA - A general term used to describe airspace in which approach control service or airport traffic control service is provided.

TERMINAL INSTRUMENT PROCEDURES (TERPS) - Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: (1) precision approach, (2) non-precision approach, (3) circling, and (4) departure.

THRESHOLD - The beginning of that portion of the runway usable for landing.
GLOSSARY OF TERMS USED IN AIRPORT PLANNING

TOUCH-AND-GO - A practice maneuver consisting of a landing and a takeoff performed in one continuous movement. A touch-and-go is considered as two operations.

TOWER - See AIRPORT TRAFFIC CONTROL TOWER (ATCT).

TRAFFIC PATTERN - The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach.

TRANSFER OF DEVELOPMENT RIGHTS (TDR) - TDR involves separate ownership and use of the various rights associated with a parcel of real estate. Under the TDR concept, some of the property's development rights (see also) are transferred to another location where they may be used to intensify allowable development. For example, lands within an area affected by aircraft noise could be kept in open space or agricultural uses, and development rights for residential or other uses could be transferred to locations outside the area. Landowners could be compensated for the transferred rights by their sale at the new locations, or the rights could be purchased by the airport. Depending on market conditions and legal requirements, the airport could either hold or resell the rights.

TRANSIENT AIRCRAFT - Aircraft not based at the airport.

TRANSMISSOMETER - An apparatus used to measure runway visibility on an ILS runway.

TRANSPORT AIRPORT - An airport designed, constructed, and maintained to serve airplanes having approach speeds of 121 knots or more.

UNICOM (Aeronautical Advisory Station) - A non-government air/ground radio communication facility which may provide airport information at certain airports.

UTILITY AIRPORT - An airport designed, constructed, and maintained to serve airplanes having approach speeds less that 121 knots.

URBAN GROWTH MANAGEMENT (UGM) - The identification and management of the demands on municipal facilities, improvements or services created by any proposed residential, commercial, industrial, or other type of development. UGM is intended to (1) provide the means for satisfying such demands, (2) identify any harmful effects of development, and (3) protect the jurisdictions and their residents against such harmful effects by minimizing the costs of municipal facilities, improvements, and services. The intent of UGM is usually not to prevent development or growth, but rather to avoid free or disorganized development or growth in the UGM area, which is generally located in and around the fringe of an urban area. The UGM area usually is either relatively undeveloped or predominantly agricultural and lacks most, if not all, municipal facilities, improvements, or services.

VASI - See VISUAL APPROACH SLOPE INDICATOR.

VECTOR - A heading issued to a pilot to provide navigational guidance by radar.

VERY HIGH FREQUENCY OMNIDIRECTIONAL RADIO RANGE (VOR) - The standard navigational aid used throughout the airway system to provide bearing information to aircraft.
When combined with Tactical Air Navigation (TACAN) the facility, called VORTAC, provides distance as well as bearing information.

VFR - See VISUAL FLIGHT RULES.

VFR CONDITIONS - Weather conditions that permit aircraft to be operated in accordance with visual flight rules.

VICTOR AIRWAY - A control area or portion thereof established in the form of a corridor, the centerline of which is defined by VOR's.

VISUAL APPROACH - An approach to an airport wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of a radar facility and having an air traffic control authorization, may deviate from the prescribed instrument approach procedure and proceed to the airport of destination, served by an operational control tower, by visual reference to the surface.

VISUAL APPROACH SLOPE INDICATOR (VASI) - An airport landing aid which provides a pilot with visual descent (approach slope) guidance while on approach to landing. See also PAPI.

VISUAL FLIGHT RULES (VFR) - Rules that govern the procedures for conducting flight under visual conditions (Federal Aviation Regulations, Part 91).

VISUAL RUNWAY - A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan.

VOR - See VERY HIGH FREQUENCY OMNIDIRECTIONAL RADIO RANGE.

WARNING AREA - Airspace which may contain hazards to non-participating aircraft in international airspace.

WIND SHEAR - A change in wind speed and/or wind direction in a short distance resulting in a tearing or shearing effect. It can exist in a horizontal or vertical direction and occasionally in both.

ZONING AND ZONING ORDINANCES - Ordinances that divide a community into zones or districts according to the present and potential use of properties for the purpose of controlling and directing the use and development of those properties. Zoning is concerned primarily with the use of land and buildings, the height and bulk of buildings, the proportion of a lot which buildings may cover, and the density of population of a given area. As an instrument of plan implementation, zoning deals principally with the use and development of privately owned land and buildings. The objective of zoning legislation is to establish regulations that provide locations for all essential uses of land and buildings and to ensure that each use is located in the most appropriate place. In FAR Part 150 planning, zoning can be used to achieve two major aims; (1) to reinforce existing compatible land uses and promote the location of future compatible uses in vacant or undeveloped land, and (2) to convert existing noncompatible uses to compatible uses over time.
APPENDIX D

LIST OF RELEVANT FEDERAL, STATE AND LOCAL STATUTES, REGULATIONS AND GUIDELINES
### APPENDIX D
LIST OF RELEVANT FEDERAL, STATE, AND LOCAL STATUTES, REGULATIONS, AND GUIDELINES

<table>
<thead>
<tr>
<th>Resource</th>
<th>Project Activity</th>
<th>Authority/Guideline</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality</td>
<td>Changes in vehicle traffic levels of aircraft operations; changes in emissions from</td>
<td>Clean Air Act, 42 USC §§7401 et seq.; 40 CFR Parts 50-87; California Clean Air Act;</td>
<td>U.S. Environmental Protection Agency; California Environmental</td>
</tr>
<tr>
<td></td>
<td>construction activity or the establishment or removal of any stationary source of</td>
<td>California Health and Safety Code Chapter 1566; Central Coast Air Quality Management</td>
<td>Protection Agency; California Air Resources Board; Santa Barbara</td>
</tr>
<tr>
<td></td>
<td>emissions.</td>
<td>District plans and regulations.</td>
<td>County Unified Air Pollution Control District.</td>
</tr>
<tr>
<td></td>
<td>Analysis of environmental impact of development or improvement of a public</td>
<td>Federal Aviation Administration (FAA) Order 5050.4A.</td>
<td>U.S. Department of Transportation - Federal Aviation Administration.</td>
</tr>
<tr>
<td></td>
<td>airport.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Improvement of a federal funded Highway project.</td>
<td>23 USC §109 (Standards for Federal Aid Highways); The Clean Air Act, 42 USC §§7506;</td>
<td>U.S. Department of Transportation - Federal Highway Administration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Air Quality Conformity and Priority Procedures for use in Federal-Aid Highway and</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Federally Funded Transit Programs, 23 CFR Part 770.</td>
<td></td>
</tr>
<tr>
<td>Biological</td>
<td>Consultation regarding federal or federally permitted projects to impound, divert,</td>
<td>Fish and Wildlife Coordination Act, 16 USC §§661 et seq., Natural Resources Act.</td>
<td>Department of the Interior-U.S. Fish and Wildlife Service.</td>
</tr>
<tr>
<td>Resources</td>
<td>or control surface waters with a total surface area greater than 10 acres.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dredge and fill activities in jurisdictional wetlands.</td>
<td>Clean Water Act, 33 USC §1251 et seq.; Executive Order 11990 (Protection of</td>
<td>Department of the Interior U.S. Fish and Wildlife Service; U.S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wetlands).</td>
<td>Environmental Protection Agency; Department of Defense - Army Corps of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Engineers; California Environmental Protection Agency.</td>
</tr>
<tr>
<td></td>
<td>wildlife habitat improvements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project activities that could affect stream beds.</td>
<td>California Fish and Game Code, Sections 1601 and 1603.</td>
<td>California Department of Fish and Game.</td>
</tr>
<tr>
<td>Resource</td>
<td>Project Activity</td>
<td>Authority/Guideline</td>
<td>Agency</td>
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<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>Project activities that may affect federally and/or state listed endangered or</td>
<td>Endangered Species Act, 7 CFR Part 355 16 USC §§1531-1543, 7 CFR Part 335; California</td>
<td>Department of the Interior-U.S. Fish and Wildlife Service; California</td>
</tr>
<tr>
<td>(continued)</td>
<td>threatened species.</td>
<td>Fish and Game Code, §§2050-2098, &quot;California Endangered Species Act of 1964&quot;.</td>
<td>Department of Fish and Game.</td>
</tr>
<tr>
<td></td>
<td>Transportation programs or projects that may require the use of any park,</td>
<td>Department of Transportation Act of 1966, 49 USC §303(c); Federal-Aid Highway Act, 23</td>
<td>U.S. Department of Transportation.</td>
</tr>
<tr>
<td></td>
<td>recreation area, or wildlife or waterfowl refuge of national, state, or local</td>
<td>USC §138.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>significance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>Project activities that may affect properties with archaeological, historic,</td>
<td>Antiquities Act of 1906; 111, Rev. Stal. Ch. 127; Historic Sites Act, 16 USC §§461 et</td>
<td>Department of the Interior-National Park Service; Advisory Council on</td>
</tr>
<tr>
<td></td>
<td>architectural, or cultural value that are listed or are eligible for listing in</td>
<td>seq.; National Historic Preservation Act, 16 USC §§470 et seq.; Protection of Historic</td>
<td>Historic Preservation, State Historic Preservation Office</td>
</tr>
<tr>
<td></td>
<td>the National Register of Historic Places. Project activities that may affect</td>
<td>and Cultural Properties, 36 CFR Part 800; National Register of Historic Places,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>traditional Native American resources. Project activities that may affect</td>
<td>36 CFR Part 60; California Historic Preservation Act.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>paleontological resources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transportation programs or projects that will require the use of or have</td>
<td>Department of Transportation Act of 1966 49 USC §303; Section 15(a) of the Federal-</td>
<td>U.S. Department of Transportation.</td>
</tr>
<tr>
<td></td>
<td>significant impacts on land of an</td>
<td>Aid Highway Act; 23 USC §138.</td>
<td></td>
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<tr>
<td></td>
<td>historic site of national, state, or local significance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource</td>
<td>Project Activity</td>
<td>Authority/Guideline</td>
<td>Agency</td>
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<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Environmental</td>
<td>Project activities that include surface mining.</td>
<td>California Environmental Quality Act, California Public Resources Code, Division 13 §2100 et seq.</td>
<td>California Resources Agency.</td>
</tr>
<tr>
<td>Soils and Geology</td>
<td>Project activities that include surface mining.</td>
<td>California Public Resources Code, Chapter 9, §2710-2796, &quot;Surface Mining and Reclamation Act of 1975&quot;</td>
<td>California Division of Mines and Geology.</td>
</tr>
<tr>
<td></td>
<td>Control of height of structures.</td>
<td>Federal Aviation Regulations (FAR) Part 77.</td>
<td>U.S. Department of Transportation; Federal Aviation Administration.</td>
</tr>
<tr>
<td>Noise</td>
<td>Aircraft noise.</td>
<td>FAR Part 150 (14 CFR 150); U.S. Housing and Urban Development guidelines; Environmental Protection Agency guidelines; California Noise Standards, Title 21, Subchapter 6.</td>
<td>U.S. Department of Transportation - Federal Aviation Administration; U.S. Department of Housing and Urban Development - Federal Housing Administration; California Department of Transportation - Aeronautics Program.</td>
</tr>
<tr>
<td>Transportation</td>
<td>Airspace use and air traffic.</td>
<td>Federal Aviation Act of 1958, as amended (P.L. 85-725); Federal Aviation Administration Handbooks 7400.2C and 8260.3.</td>
<td>U.S. Department of Transportation - Federal Aviation Administration.</td>
</tr>
<tr>
<td>Resource</td>
<td>Project Activity</td>
<td>Authority/Guideline</td>
<td>Agency</td>
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<tr>
<td>------------------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Removal and storage of polychlorinated biphenyls (PCBs).</td>
<td>Toxic Substance Control Act P.L. 100-366, CCR Title 22, Chapter 30, California Health and Safety Code, Chapter 6.5.</td>
<td>U.S. Environmental Protection Agency; California Environmental Protection Agency.</td>
</tr>
<tr>
<td></td>
<td>Construction in/alteration of floodplain.</td>
<td>Executive Order 11988 (Floodplain Management).</td>
<td>Department of Defense - Army Corps of Engineers.</td>
</tr>
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APPENDIX E

LIST OF FEDERAL PERMITS, LICENSES AND ENTITLEMENTS
## APPENDIX E: FEDERAL PERMITS, LICENSES, AND ENTITLEMENTS

<table>
<thead>
<tr>
<th>Federal Permit, License, or Entitlement</th>
<th>Typical Activity, Facility, or Category of Persons Required to Obtain the Federal Permit, License, or Entitlement</th>
<th>Regulatory Agency</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title V permit under the Clean Air Act (CAA), as amended by the 1990 Clean Air Act Amendments</td>
<td>Any major source (source that emits more than 100 tons/year of criteria pollutant in nonattainment area for that pollutant or is otherwise defined in Title I of CAA as a major source); affected sources as defined in Title IV of CAA; sources subject to Section 111 regarding New Source Performance Standards; sources of air toxics regulated under Section 112 or CAA; Sources required to have new source or modification permits under Parts C or D of Title I of CAA; and other source designated by EPA regulations</td>
<td>U.S. Environmental Protection Agency (EPA); Applicable state Air Pollution Control District if state has EPA-approved air quality control program</td>
<td>Title V of CAA</td>
</tr>
<tr>
<td>National Pollutant Discharge Elimination System (NPDES) permit</td>
<td>Discharge of pollutant from any point source into waters of the United States</td>
<td>U.S. EPA; State Water Quality Control Board</td>
<td>Section 402 of Federal Water Pollution Act, 33 USC §1342; California Water Code §13376</td>
</tr>
<tr>
<td>Section 404 (Dredge and Fill) Permit</td>
<td>Any project activities resulting in the discharge of dredged or fill material into bodies of water, including wetlands, within the United States</td>
<td>U.S. Army Corps of Engineers, in consultation with U.S. EPA</td>
<td>U.S. Army Corps of Engineers, in consultation with U.S. EPA Section 404 of Federal Water Pollution Act, 33 USC §1344</td>
</tr>
<tr>
<td>Underground Injection Control (UIC) permit</td>
<td>Owners or operators of certain types of underground injection wells</td>
<td>U.S. EPA; California EPA</td>
<td>Safe Drinking Water Act, 42 USC §300h(b); 40 CFR Part 144; California Water Code §§13382, 13382.5</td>
</tr>
<tr>
<td>Hazardous waste treatment, storage, or disposal (TSD) facility permit</td>
<td>Owners or operators of certain types of underground injection wells</td>
<td>U.S. EPA; California EPA</td>
<td>Resource Conservation and Recovery Act (RCRA) as amended, 42 USC §3005; 40 CFR Part 270; California Health &amp; Safety Code §25201</td>
</tr>
<tr>
<td>EPA manifest identification number</td>
<td>Generators or transporters (off-site transport) of hazardous waste</td>
<td>U.S. EPA</td>
<td>40 CFR §262.10 (generators); 40 CFR Part 263, Subpart B (transporters)</td>
</tr>
<tr>
<td>Antiquities permit</td>
<td>Excavation and/or removal of archaeological resources from public lands or Indian lands and carrying out activities associated with such excavation and/or removal</td>
<td>U.S. Dept. of the Interior, National Park Service</td>
<td>Archaeological Resource Protection Act of 1979, 16 USC §470cc</td>
</tr>
<tr>
<td>Endangered Species Act §10 permit</td>
<td>Taking endangered or threatened wildlife species; engaging in certain commercial trade of endangered or threatened plants or removing such plants on property subject to Federal jurisdiction</td>
<td>U.S. Dept. of Interior, Fish &amp; Wildlife Service</td>
<td>Section 10 of Endangered Species Act, 16 USC §1539; 50 CFR Part 17, Subparts C,D,F, &amp; G</td>
</tr>
<tr>
<td>Airport Operating Certificate</td>
<td>Operating a land airport serving any scheduled or unscheduled passenger operation of air carrier aircraft designed for more than 30 passenger seats</td>
<td>U.S. Dept. of Transportation, Federal Aviation Administration</td>
<td>Federal Aviation Act of 1958, 49 USC App. §1432</td>
</tr>
</tbody>
</table>
APPENDIX F

CHARACTERISTICS OF NOISE AND NOISE REGULATIONS
APPENDIX F:
CHARACTERISTICS OF NOISE AND NOISE REGULATIONS

ENVIRONMENTAL NOISE DESCRIPTORS

Sound waves are complex forms of acoustical energy which travel outward from a source and, when reaching human ears, may be perceived as beautiful, desirable, or unwanted. Unwanted sound is normally referred to as noise. Sound levels or "noise" levels are measured in decibels. A decibel (dB) is a logarithmic unit of sound energy intensity (loudness). Environmental noise is usually described in terms of A-weighted decibels (dBA). The A-weighting is a correction factor applied to the decibel scale which corrects for the variation in frequency response of the human ear. Some representative noise sources, encountered in daily life, and their relative loudness are set forth in Table F-1.

Environmental noise levels typically fluctuate over time, and different types of noise descriptions are used to account for this variability. Some noise descriptors are intended to characterize the average noise environment, while others are primarily intended to focus on individual, or intrusive noise events. There is no one, single noise descriptor that can fully characterize all noise environments. In this report, noise is described using two descriptors: (1) The Community Noise Equivalent Level (CNEL) for describing the cumulative (energy average) noise environment, and (2) The Sound Exposure Level (SEL) for describing the potential intrusiveness of individual (single) noise events.

The Community Noise Equivalent Level metric is the methodology specified in the California Airport Noise Standards¹ and is nearly identical to the yearly Day-Night Average Sound Level (DNL or Ldn) used by the U.S. Department of Transportation and FAA. Both methodologies penalize individual noise events by 10dB for increased annoyance during nighttime hours (10:00 PM - 7:00 AM). CNEL adds an additional 5dB penalty to events occurring during evening hours (7:00 PM - 10:00PM).

SEL is a logarithmic measure of the time integrated energy of a single noise event. SEL reflects both the duration and magnitude of a given noise event, and is used in computing aircraft acoustical energy contribution to Ldn/CNEL.

Aircraft operations typically affect ambient noise levels over a wider geographical area than does surface vehicle traffic. Hence, the following discussion focuses primarily on aircraft-related noise regulations, but a brief discussion of relevant traffic noise standards is also provided.

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¹. State of California, Code of Regulations, Title 21, Subchapter 6, "Noise Standards."

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### TABLE F-1

Sound Levels (dB) and Relative Loudness of Typical Noise Sources in Indoor and Outdoor Environments

<table>
<thead>
<tr>
<th>dB(A)</th>
<th>Overall Level</th>
<th>Community Noise Levels (Outdoor)</th>
<th>Home and Industry Noise Levels (Indoor)</th>
<th>Subjective Loudness (Relative to 70dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>Uncomfortably loud</td>
<td>Military jet aircraft take-off from aircraft carrier with afterburner at 50ft... 130 dB</td>
<td>Oxygen torch... 121dB</td>
<td>32 times as loud</td>
</tr>
<tr>
<td>110</td>
<td></td>
<td>Turbo-fan aircraft at takeoff. Power at 200 ft. ... 118dB</td>
<td>Riveting machine... 110dB</td>
<td>16 times as loud</td>
</tr>
<tr>
<td>100</td>
<td>Very loud</td>
<td>Boeing 707 or DC-8 aircraft at one nautical mile (6080 ft.) before landing ... 106dB</td>
<td>Rock band... 108-114dB</td>
<td>8 times as loud</td>
</tr>
<tr>
<td>90</td>
<td></td>
<td>Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft.) before landing ... 97dB</td>
<td>Newspaper press... 97dB</td>
<td>4 times as loud</td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>Car wash at 20 ft. ... 89dB</td>
<td>Food blender... 88dB</td>
<td>2 times as loud</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Propeller plane flyover at 1000 ft. ... 88dB</td>
<td>Milling machine... 85dB</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diesel truck 40 mph at 50 ft. ... 84dB</td>
<td>Garbage disposal... 80dB</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diesel train 45 mph at 100 ft. ... 83dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High urban ambient sound80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>Moderately loud</td>
<td>Passenger car 65 mph at 25 ft. ... 77dB</td>
<td>Living room music... 76dB</td>
<td>70dB(A)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Freeway at 50ft. from pavement edge 10:00 a.m.76</td>
<td>Radio or TV-audio, vacuum cleaner</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>Air conditioning unit at 100 ft. ... 60dB</td>
<td>Cash register at 10 ft. ... 65-70dB</td>
<td>¼ as loud</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Electric typewriter at 10 ft. ... 64dB</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Dishwasher (Rinse) at 10 ft. ... 60dB</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conversation ... 60dB</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Quiet</td>
<td>Large transformers at 100 ft. ... 50dB</td>
<td></td>
<td>¼ as loud</td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>Bird calls ... 44dB</td>
<td></td>
<td>⅛ as loud</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lowest limit of urban ambient sound ... 40dB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**dB Scale Interrupted**

<table>
<thead>
<tr>
<th>dB</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Just audible</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Threshold of hearing</td>
<td></td>
</tr>
</tbody>
</table>


**FINAL EA/EIR**

**F-2**

**MAY 2, 1998**
AIRCRAFT NOISE STANDARDS

The authority to establish noise standards for individual aircraft is vested exclusively in the Federal government. The basic federal legislation is the Federal Aviation Act of 1958. A 1968 amendment to this Act required the Federal Aviation Administration (FAA) to consider noise as a criterion in its certification of aircraft and airports, and directed the FAA to prescribe rules and regulations to provide for the control and abatement of aircraft noise. Under this authority, the FAA has adopted uniform noise emission standards for all aircraft operating in the United States (including small aircraft of the type anticipated to use the Lompoc Airport).2

These standards are contained in Federal Aviation Regulations (FAR) Part 36 and comprise three different "stages." Stage 1 reflects the older technology turbojet aircraft; Stage 2 is an intermediate stage representing more modern aircraft; and Stage 3 includes the latest engine noise suppression technology. Operations by Stage 1 aircraft have been generally prohibited in the United States since 1985. In 1990, the federal government adopted the Airport Noise and Capacity Act (ANCA) to establish a national aircraft noise policy. The ANCA requires a phaseout of the relatively noisy Stage 2 aircraft by year 2000. However, certain provisions of the ANCA allow for the possible extension of this phase-out deadline.

Restrictions on Aircraft Use. Authority to control the manner and distribution of aircraft operations is shared by federal and state agencies. An airport proprietor, such as the City of Lompoc, also has authority in this area, but this authority is limited by federal law. FAA's first priority is to ensure that aircraft operations are conducted in a safe manner; therefore, noise regulations which may affect the safety of aircraft operation, such as specifications for climbout procedures or turns, must meet the FAA's tests of safety and compatibility with other aircraft operations in the surrounding airspace.

Even if safety considerations are met, under general principles of federal law, an airport operator cannot impose regulations that affect airport access in an arbitrary, unreasonable, or discriminatory manner; that unduly burden interstate commerce, or that create an exclusive right to operate. The ANCA specifically precludes an airport operator from establishing additional restrictions on FAR Part 36 Stage 3 aircraft, unless the operator demonstrates the feasibility of the restrictions through a detailed cost-benefit analysis, and obtains the approval of the FAA.

Federal Airport Noise Standards. The Federal Aviation Safety and Noise Abatement Act of 1979 granted authority to the FAA to issue regulations addressing airport noise compatibility planning. These regulations, codified in Federal Aviation Regulations (FAR) Part 150, became effective in January 1985. FAR Part 150 sets forth the methods and procedures that are to be followed by those airport operators who wish to prepare noise maps and develop land use compatibility programs.

Federal land use compatibility criteria are set forth in Table F-2. Federal funding is provided to the airport operator for this work if the specified methodologies and procedures are followed. Once these maps and programs have been approved by the FAA, the airport operator becomes eligible for federal funding of identified noise control (on-airport) and noise mitigations (off-airport) programs.

2. Small aircraft are defined as those aircraft that have a maximum gross takeoff weight (MGTOW) of from 12,500 pounds to 60,000 pounds.
In accordance with Section 123 of the Airport and Airway Safety, Capacity, Noise Improvement, and Intermodal Transportation Act of 1992, the FAA was required to conduct a study to analyze the social, economic, and health effects of aircraft noise on people residing in a noise environment of less than Ldn (CNEL) 65 dBA. On March 29, 1993, the FAA issued a notice in the Federal Register indicating that the FAA plans to use the research and recommendations of the Federal Inter-Agency Committee on Noise (FICON) to fulfill that requirement. Consistent with the FICON report, published in August 1992, the FAA currently recommends that Ldn (CNEL) continue to be used as the principle means to describe long-term noise exposure for aircraft operations. The FAA has found that the dose-response relationship, as represented by Ldn (CNEL) and "Percent Highly Annoyed", remains the best available approach to analyze total health and welfare impacts for the vast majority of transportation noise analysis situations. The FAA indicates that a noise exposure of Ldn (CNEL) 65 dBA or less is acceptable for residential uses.

**California Airport Noise Standards.** These standards, first adopted in 1972, are enforced by county governments, under the review of the California Department of Transportation (Caltrans) Division of Aeronautics. The criterion noise level of the Airport Noise Standards is CNEL 65 dBA, and the CNEL 65 dBA noise contour developed for aircraft operations at an airport determines the airport’s Noise Impact Boundary.³

The CNEL 65 dBA criterion noise level used in the California Airport Noise Standards is consistent with FAA noise and land use compatibility guidelines.

Within the Noise Impact Boundary, the airport proprietor is required to ensure that all land uses are compatible with the aircraft noise environment or the airport proprietor must secure a variance from Caltrans. The preferred methods for ensuring compatibility involve aircraft noise abatement procedures and preventive land use compatibility planning strategies.

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³ The CNEL 65 dBA criterion noise level used in the California Airport Noise Standards is consistent with FAA noise and land use compatibility guidelines. In accordance with Section 123 of the Airport and Airway Safety, Capacity, Noise Improvement, and Intermodal Transportation Act of 1992, the FAA was required to conduct a study to analyze the social, economic, and health effects of aircraft noise on people residing in a noise environment of less than Ldn (CNEL) 65 dBA. On March 29, 1993, the FAA issued a notice in the Federal Register indicating that the FAA plans to use the research and recommendations of the Federal Inter-Agency Committee on Noise (FICON) to fulfill that requirement. Consistent with the FICON report, published in August 1992, the FAA currently recommends that Ldn (CNEL) continue to be used as the principle means to describe long-term noise exposure for aircraft operations. The FAA has found that the dose-response relationship, as represented by Ldn (CNEL) and "Percent Highly Annoyed," remains the best available approach to analyze total health and welfare impacts for the vast majority of transportation noise analysis situations. The FAA indicates that a noise exposure of Ldn (CNEL) 65 dBA or less is acceptable for residential uses.
### TABLE F-2
FAR Part 150 Land Use Compatibility Designations*

<table>
<thead>
<tr>
<th>Land Use Class:</th>
<th>Yearly Day-Night Average Sound Level (Ldn) in Decibels**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below</td>
</tr>
<tr>
<td>FAR Part 150 Land Use Categories</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>Y</td>
</tr>
<tr>
<td>Residential, other than mobile homes and transient lodgings</td>
<td>Y</td>
</tr>
<tr>
<td>Mobile home parks</td>
<td>Y</td>
</tr>
<tr>
<td>Transient lodgings</td>
<td>Y</td>
</tr>
<tr>
<td>Public Use</td>
<td></td>
</tr>
<tr>
<td>Schools</td>
<td>Y</td>
</tr>
<tr>
<td>Hospitals, and nursing homes</td>
<td>Y</td>
</tr>
<tr>
<td>Churches, auditoriums and concert halls</td>
<td>Y</td>
</tr>
<tr>
<td>Governmental services</td>
<td>Y</td>
</tr>
<tr>
<td>Transportation</td>
<td>Y</td>
</tr>
<tr>
<td>Parking</td>
<td>Y</td>
</tr>
<tr>
<td>Commercial Use</td>
<td></td>
</tr>
<tr>
<td>Offices, business and professional</td>
<td>Y</td>
</tr>
<tr>
<td>Wholesale and retail-building materials, hardware and farm equipment</td>
<td>Y</td>
</tr>
<tr>
<td>Retail trade-general</td>
<td>Y</td>
</tr>
<tr>
<td>Utilities</td>
<td>Y</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Manufacturing and Production</td>
<td></td>
</tr>
<tr>
<td>Manufacturing general</td>
<td>Y</td>
</tr>
<tr>
<td>Photographic and optical</td>
<td>Y</td>
</tr>
<tr>
<td>Agriculture (except livestock) and forestry</td>
<td>Y</td>
</tr>
<tr>
<td>Livestock farming and breeding</td>
<td>Y</td>
</tr>
<tr>
<td>Mining and fishing, resource production and extractions</td>
<td>Y</td>
</tr>
<tr>
<td>Recreation</td>
<td></td>
</tr>
<tr>
<td>Outdoor sports arenas and spectator sports</td>
<td>Y</td>
</tr>
<tr>
<td>Outdoor music halls, amphitheaters</td>
<td>Y</td>
</tr>
<tr>
<td>Nature exhibits and zoos</td>
<td>Y</td>
</tr>
<tr>
<td>Amusements, parks, resorts and camps</td>
<td>Y</td>
</tr>
<tr>
<td>Golf courses, riding stables and water recreation</td>
<td>Y</td>
</tr>
</tbody>
</table>

FAR Part 150, Appendix A, Table 2, "Land Use Compatibility With Yearly Day-Night Average Sound Levels." The designations contained in this table are based upon the above-referenced source, and in neither case represent a Federal determination that any use of land covered by the Part 150 program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses remains with local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land use.

For comparative purposes, letters in parentheses and numbers refer to notes (see following page) and noise level reductions (NLR), respectively. Ldn is deemed equal to CNEL.

**KEY TO TABLE F-2**

<table>
<thead>
<tr>
<th>Y</th>
<th>Yes, land use and related structures compatible without restriction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>No, land use and related structures are not compatible, and should be prohibited.</td>
</tr>
<tr>
<td>NLR</td>
<td>Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.</td>
</tr>
<tr>
<td>25,30 or 35</td>
<td>Land uses and related structures generally considered compatible; measures to achieve NLR of 25, 30, or 35 must be incorporated into design and construction of structures.</td>
</tr>
<tr>
<td>(a)</td>
<td>Where the community determines that residential uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal 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.</td>
</tr>
<tr>
<td>(b)</td>
<td>Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.</td>
</tr>
<tr>
<td>(c)</td>
<td>Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.</td>
</tr>
<tr>
<td>(d)</td>
<td>Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.</td>
</tr>
<tr>
<td>(e)</td>
<td>Land use compatible provided special sound reinforcement systems are installed.</td>
</tr>
<tr>
<td>(f)</td>
<td>Residential buildings require an NLR of 25.</td>
</tr>
<tr>
<td>(g)</td>
<td>Residential buildings require an NLR of 30.</td>
</tr>
<tr>
<td>(h)</td>
<td>Residential buildings not permitted.</td>
</tr>
</tbody>
</table>
Under the California Airport Noise Standards, residences within the Noise Impact Boundary (NIB) are deemed to be incompatible, unless:

1. an avigation easement (an easement which acknowledges the potential for aircraft overflight and consequent noise) for aircraft noise has been acquired by the airport proprietor;

2. the dwelling unit was in existence at the same location prior to January 1, 1989, and has adequate acoustic insulation to ensure an interior CNEL of 45 dB or less in all habitable rooms;

3. the residence is a high rise apartment or condominium having an interior CNEL of 45 dB or less in all habitable rooms due to aircraft noise, and an air conditioning system as appropriate;

4. the airport proprietor has made a genuine effort to acoustically treat affected residences or acquire avigation easements, or both, but the property owners have refused to take part in the program; or

5. the residence is owned by the airport proprietor.

The California Airport Noise Standards also specify that schools, hospitals and convalescent homes, and places of worship are incompatible uses within the Noise Impact Boundary unless an avigation easement has been acquired by the airport proprietor, or unless the structures have adequate acoustic performance to ensure an interior CNEL of 45 dB or less due to aircraft noise.

**MOTOR VEHICLE NOISE STANDARDS**

**Federal Highway Administration.** The Federal Quiet Communities Act of 1978 amended the Noise Control Act of 1972 to encourage noise control programs at the state and community level. As part of the implementing regulations, the Federal Highway Administration (FHWA) developed a set of maximum noise levels for use in determining when noise mitigation is necessary for highway improvements funded with FHWA monies. Caltrans is the state agency responsible for implementing the FHWA noise regulations and uses the same criteria for state-funded projects. If construction of a new highway or improvements to an existing highway (e.g., road widening, signal synchronization, capacity increases) will result in noise levels as identified in Table F-3, Caltrans needs to consider incorporation of noise mitigation measures into the design of the highway project. Noise mitigation options available for highways are commonly berms or sound walls. Reductions of 5-10 dBA may be available depending upon the particular situation.
<table>
<thead>
<tr>
<th>Hourly A-Weighted Sound Level *</th>
<th>Land Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leq(h)</td>
<td>L10(h)</td>
</tr>
<tr>
<td>(Exterior)</td>
<td>Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.</td>
</tr>
<tr>
<td>57 dBA</td>
<td>60 dBA</td>
</tr>
<tr>
<td>67 dBA</td>
<td>70 dBA</td>
</tr>
<tr>
<td>72 dBA</td>
<td>75 dBA</td>
</tr>
<tr>
<td>52 dBA</td>
<td>55 dBA</td>
</tr>
</tbody>
</table>

Source: Federal Highway Administration, Federal Highway Program Manual Transmittal 348 (7-7-3), August 9, 1982.

Note: Either L10(h) or Leq(h) (but not both) may be used on a project. L10 are noise levels exceeded ten percent of the time. They are commonly used to express peak hour noise levels (since peak hour traffic volumes are typically 10 percent of the daily traffic volumes). Leq values are typically 3dBA lower than L10 values for the same time period.
STATE OF CALIFORNIA

The California Motor Vehicle Code sets operational noise limits for motor vehicles (Section 23130), requires an adequate muffler in constant operation and properly maintained (Section 27150), prohibits the sale or installation of a motor vehicle exhaust system unless it meets regulations or standards (Section 27150.1), prohibits the modification of the exhaust system to amplify or increase the noise above that of the original system (Section 27151), prohibits the sale of new vehicles exceeding the noise limits (Section 27160), and sets noise limits for the operation of off-road motor vehicles (Section 38280) as shown in Table F-4. The California Highway Patrol, and the Yolo County Sheriff's Department are responsible for enforcing the Motor Vehicle Code within the County limits.

<table>
<thead>
<tr>
<th>Type of Vehicles</th>
<th>Date of Manufacture</th>
<th>dB(A) Value at 50 Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorcycles</td>
<td>Before 1970</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>1970-72</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>1973-74</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>1976-85</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>After 1985</td>
<td>80</td>
</tr>
<tr>
<td>Motorcycles, other than motor-driven cycles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle with a gross vehicle weight over 6,000 lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 8,500 lbs.</td>
<td>1968-72</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>1973-74</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>1975-77</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>1978-81</td>
<td>83</td>
</tr>
<tr>
<td>Over 6,000 lbs. up to 8,500 lbs.</td>
<td>After 1977</td>
<td>80</td>
</tr>
<tr>
<td>Over 8,500 lbs. up to 10,000 lbs.</td>
<td>After 1981</td>
<td>80</td>
</tr>
<tr>
<td>Over 10,000 lbs.</td>
<td>1982-85</td>
<td>83</td>
</tr>
<tr>
<td>Over 10,000 lbs.</td>
<td>After 1985</td>
<td>80</td>
</tr>
<tr>
<td>Any other motor vehicle</td>
<td>1968-72</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>1973-74</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>After 1974</td>
<td>80</td>
</tr>
<tr>
<td>Noise level limits for the operation of off-road motor vehicles</td>
<td>Before 1973</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>1973-74</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>After 1974</td>
<td>86</td>
</tr>
<tr>
<td>Operation of Vehicle</td>
<td>Speed Limit ≤ 35 mpg</td>
<td>Speed Limit &gt;35 and ≤ 45 mph</td>
</tr>
</tbody>
</table>

Source: California Motor Vehicle Code
APPENDIX G

NOISE MODEL INPUTS
APPENDIX G: NOISE MODEL INPUTS

Several important variables influence aircraft noise generation. This appendix briefly describes the data and information sources that were used to reflect the following variable categories:

- Existing and forecast aircraft activity,
- Aircraft fleet mix,
- Time of day of operations,
- Runway geometry and use,
- Flight track geometry and use, and
- Aircraft operating procedures.

Existing and forecast aircraft activity. Information on current air traffic activity was obtained from Yolo County during the development of the Airport Master Plan. The average day of the 12-month period of January 1 through December 31, 1993 was used as the design day for development of the existing conditions noise exposure map. Approximately 165 daily aircraft operations were conducted during this twelve month period.

Forecast aircraft activity levels and mix for the year 2015 were used to produce contours describing future conditions. Year 2015 conditions reflect an increase in daily activity to some 277 operations.

Aircraft fleet mix. Noise from aircraft operations reflect a fleet composed of single-engine and twin-engine reciprocating propeller aircraft, turboprop aircraft and turbojets. Single-engine reciprocating propeller aircraft will form the greater part of total demand through the forecast period, but are expected to grow at gradually declining rates because the national inventory of such types is declining. Twin-engine operations are expected to grow at a slightly higher rate.

Although the general aviation fleet is dominated by light single- and twin-engine propeller aircraft, high-performance aircraft serving corporate aviation are expected to represent a greater portion of total general aviation traffic in future years. Turboprop aircraft currently account for less than 3,000 annual operations. Because of the projected growth in economic activity in the Yolo-Solano County area, turboprop operations are expected to double by 2015. The Airport is also used frequently by turbojet itinerant aircraft. Such operations are estimated at about 4,350 operations per year at present. It is also anticipated that turbojet activity could increase at a rate comparable to that for turboprop aircraft.

Time of day of operations. The percentage split of day, evening and nighttime operations for existing conditions was verified with the County staff and Airport users during the Master Plan process. The splits of day, evening and nighttime operations for the year 2015 were extrapolated from existing conditions.

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1. It was subsequently determined that this activity level was also representative of current (1994/95) activity levels (i.e., had not changed significantly) and, as a result, base year noise exposure conditions have been adjusted to reflect 1993/94 conditions.
Runway geometry and use. Contours were produced for the existing 6,000-foot long runway depicted on the ALP. The noise exposure of existing conditions reflects the existing runway geometry.

Flight track geometry and use. Flight track geometry and loading was verified by County and airport users during the Master Plan process and suggests that all operations of both light propeller and sophisticated turbojet and turboprop aircraft would occur on relatively predictable flight tracks. Flight track geometry is influenced by a variety of factors including peak hour aircraft demand levels and derivative air traffic requirements, aircraft performance, and published Airport noise abatement policies.

Aircraft operating procedures. Operating procedures for specific types of aircraft may vary widely because of such factors as pilot technique, user operational procedures, requirements of air traffic conditions, and meteorology. Thus, for example, turboprop aircraft of the same type operated by different users bound for the same destination may use somewhat different flap (and throttle) settings resulting in different rates of climb, throttle application and resultant noise emissions.

The noise exposure modeling conducted for this study presumes that all aircraft use standard, predictable departure and arrival procedures. It is anticipated that variations to standard procedures, which frequently occur in practice, will both over and under-state aircraft performance and other operational parameters and, thus, converge on the predicted procedure.

Noise model limitations and caveats. The validity and accuracy of CNEL calculations depend on the basic information used in the calculations. For future airport activities, the reliability of CNEL calculations may be affected by such factors as:

- Aviation activity levels -- number of operations, mix of aircraft types, times of operations, and flight tracks -- are forecasts of what probably will occur.
- Aircraft acoustical and performance characteristics are also forecasts. When new aircraft designs are involved in the projections, noise data and operational characteristics must be estimated.
- The noise descriptors and interpretational criteria used in the CNEL procedure represent average human response (and reaction) to aircraft noise. Because people differ substantially in their response to noise, and because the physical measure of noise accounts for only a portion of an individual's reaction to that noise, the CNEL scale can show only an average response to aircraft noise.

In view of these uncertainties, CNEL mapping was developed as a tool to assist in land use planning around airports. The mapping is best used for comparative purposes, rather than for providing absolute values. That is, CNEL calculations provide valid comparisons between different projected conditions, so long as consistent assumptions and base data are used for all calculations. Thus, sets of CNEL calculations can show which of the simulated situations are better, and generally how much better, from a noise impact viewpoint. However, a fine line drawn on a map by a computer does not permit an inference that a particular noise condition exists on one side of that line and not on the other. CNEL calculations are merely a means for
comparing noise impacts, and do not precisely define such impacts relative to specific parcels of land. Nevertheless, CNEL contours can be used to:

- highlight an existing or potential aircraft noise problem that requires attention.
- assist in the preparation of airport environs land use plans.
- provide guidance in the development of land use control devices, such as zoning ordinances, subdivision regulations, and building codes.
- provide easy comparison of the relative magnitudes of noise impact associated with different developmental and operational alternatives and forecast horizons.
APPENDIX H

NOISE AND ANNOYANCE
APPENDIX H: NOISE AND ANNOYANCE

Annoyance due to individual aircraft noise events should not be construed to be indicative of any significant potential for hearing loss or other adverse health effects. Such effects are only associated with long-term continuous exposure to high noise levels. For example, in a 1982 article on the effects of noise, Richard Procurier, former chief of the EPA's noise control program, was quoted as saying:

"(t)he real danger is in constant din. If the day-night noise average in a community is above 70 decibels, 24 hours a day, 365 days a year, then we're in trouble. Hearing losses might occur. A level of 65 decibels is what the average business office produces..."

In the San Francisco Bay Area, the average day-night sound level is approximately 55dB, which Procurier believed to be "acceptable and realistic within the context of the times." 1

Moreover, it is often difficult to point to one specific area of our environment as being the cause of a physical or psychological problem. For example, environments that suffer from high levels of noise often have other characteristics (e.g. pollution, poor housing, high levels of population density) that may also (adversely) affect behavior and health. 2

Nonetheless it is well established that continuous exposure to high levels of noise will adversely affect human health. The most obvious effect is that of hearing loss or impairment. A number of studies have been sponsored by the FAA to determine the effect of aircraft noise on hearing, and especially with regard to the effects of noise on individuals regularly exposed to aircraft noise, such as those who reside in proximity to airports. Among the studies specifically addressing the question of community hearing loss around airports is a 1972 study comparing the hearing acuity of two groups of residents, with one group near Los Angeles International Airport (LAX), and the other group from a relatively quiet area away from the Airport. 3 The report concluded that there was no significant difference in the hearing acuity of the two groups of people, and that there was no correlation between hearing acuity and length of residency near the Airport. Other studies have corroborated these findings, and it has generally been established that under normal circumstances the people in a community surrounding an airport are in no danger of hearing damage due to aircraft noise.

Sleep interference is another cause of annoyance associated with aircraft operations. A 1975 research paper assessed the impacts of aircraft noise on sleep using criteria based on the combined effect of the loudness of a noise and its duration. 4 The technical term for the combination of these two factors is the sound exposure level or SEL. SEL can be thought of as


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the total noise within 10dB of the peak noise level of a given noise event compressed into a 1-second period. In the respect SELs always result in a higher number than the maximum noise level associated with the event. The SELs given in Table H-1 represents the level measured inside a bedroom. The relationship between the indoor and outdoor SEL depends on whether the bedroom windows are closed, the type of windows, the exterior wall construction of the home, and the presence of any other penetrations in the wall. As an example, a California home of normal construction, with windows partially open generally affords an exterior-to-interior noise level reduction of about 20dB.

Sleep disturbance studies have also been conducted by Charles M. Salter Associates, a San Francisco-based acoustical consulting firm, for hospitals undergoing remodeling to determine the potential for construction noise to interfere with hospital activities. During these studies, many measurements were made within various hospitals. One of the conclusions of the study was that ambient noise levels in hospitals are not low. Typical levels range from 40 to 70dBA in hospital rooms. There are also a significant number of interruptions of patients' rest by nurses, etc., during their daily routine. The study concluded that if intrusive noises that occur on a sporadic basis do not exceed 65dBA, then significant impacts on hospital activities would not be expected.

Speech interference is another source of annoyance associated with aircraft noise. In offices, where speech interference would be the primary criterion, studies have shown that if noise levels exceed 60dBA, there would be some disruption of speech at normal voice levels, causing people to raise their voices. If the noise level exceeds 70dBA, it would become difficult to carry on a conversation even on the telephone. This is also true for residential uses, but the speech interference criterion level is set at 65dB. In a 1963 study sponsored by the British government, researchers found that aircraft noise levels of 75dB annoyed eighty percent of the test population when they interfered with television viewing.

In a classroom, where it is necessary to communicate new concepts and new vocabularies, it is desirable to have low background sound levels. Teachers will, to a certain extent, compensate for increased background noise levels by raising their voices. If the background sound level exceeds 55dBA, it becomes more difficult for a teacher to communicate accurately. Additionally, increased sound levels due to random events can sometimes disrupt a class.

Non-auditory effects of aircraft noise typically relate to the effects on physical, mental and emotional health. Frequently, statements and claims are made that aviation noise damages the health of airport neighbors. It is generally accepted that aircraft noise above a certain level annoys airport neighbors but whether or not that noise causes any physical or mental damage is far less well established.
TABLE H-1
SOUND EXPOSURE LEVEL AND SLEEP DISTURBANCE

<table>
<thead>
<tr>
<th>Indoor SEL (dB)</th>
<th>Percent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>20</td>
</tr>
<tr>
<td>69</td>
<td>30</td>
</tr>
<tr>
<td>72</td>
<td>40</td>
</tr>
<tr>
<td>75</td>
<td>50</td>
</tr>
<tr>
<td>78</td>
<td>60</td>
</tr>
<tr>
<td>82</td>
<td>70</td>
</tr>
<tr>
<td>85</td>
<td>80</td>
</tr>
</tbody>
</table>

* Percent of subjects experiencing sleep disturbance.

In 1968, the FAA was mandated to protect the "public health and welfare" as a guide in prescribing and amending aviation standards and regulations. Recent federal court decisions have defined Public Health and Welfare to include both physical and mental health effects. Physical effects are fairly well defined (such as hearing loss), but welfare effects can be interpreted to cover many things, most recent definition of welfare define it as the mental or emotional reaction to noise, often characterized as annoyance or interference with a normal activity (speech, sleep or solitude). As a result of this mandate, the FAA recommends that both the physical and mental health effects of airport noise be addressed in the environmental review process.

In 1981, the FAA conducted a study reviewing the available scientific journal articles and reports dealing with possible health and welfare effects of airport noise on residents, of neighboring airport communities. It was determined that most available studies attempting to relate aircraft noise and physical and/or mental health lacked scientifically valid methodologies or sufficient content on which their findings could be judged. It is interesting to note that a recent EPA-sponsored survey judged only one study out of 83 to rate higher than "4" on a scale of 0 to 9. Thus, in general, it is difficult to prove—or disprove—any connection between mental or physical health and airport noise.

In a 1978 publication by the Environmental Protection Agency it was stated that there is a growing body of evidence which strongly suggests a link between exposure to noise and the development and aggravation of a number of heart disease problems. The article also stated that no one has yet shown that noise inflicts any measurable damage to the heart itself; what is a factor is the effect of the incurring stress and its related reactions (e.g., increased adrenaline, changes in heart rate, and elevated blood pressure). Studies in this area have focused on the effects of high levels

of industrial noise. These are typically very high noise levels over long durations, as opposed to high levels for short durations like those incurred under the flight paths at major air carrier airports.

In a 1972-1976 study of elementary school students' reading scores conducted by the Institute of Environmental Medicine, students reading below grade level were assigned noise exposure scores based on noise contours for New York City airports. It was found that an additional 3.6% of the students in the noisiest schools read at least 1 year below grade level and the percent reading below grade level increased as noise level increased. The subject schools were located inside airport noise contours equivalent to CNEL 57.1 to 75.5 dB. There are no schools in the Yolo County Airport environs that would be subjected to cumulative noise levels in excess of CNEL 55 dB.

Community response to aircraft noise can be affected by factors other than the noise itself. Fear of crashes, other forms of pollution, and proximity to aircraft flight tracks are three non-noise aspects that are related to airport noise contours and complaint patterns. These factors were studied in a 1980 article in the Journal of Sound and Vibration which concluded that the fear of crashes appeared to be less strongly related to response to aircraft noise than other studies have suggested. Two other non-noise effects of aircraft—vibration and pollution—were found to be significantly related in some cases to the reported effects of aircraft noise. Overall the study suggests that all four factors investigated—fear of crashes, air pollution, vibration, and location relative to flight tracks—show some relationship with response to aircraft noise, although the relationship was not always very strong.

In a similar study published in 1981, the subject of annoyance created by fear of overflying aircraft was investigated. The investigators theorized that if, as has been suggested, expressions of annoyance attributable to aircraft noise may reflect, in part, fear of aircraft overflights and possible crashes, then residents of areas where crashes have occurred should express more annoyance. To test their hypothesis the investigators established two test groups, one in an area where a recent air crash involving fatalities had occurred and another in a similar area nearby without such a history. It was predicted that those in the crash area would express more fear and would more often identify aircraft as a source of noise annoyance. The study results supported the hypothesis, and results were much the same in another similar study. In both studies the crash-area groups had strong associative fear and noise annoyance responses. The same was true, albeit to a lesser extent, in the non-crash area. If any conclusion can be drawn from the above studies, it may be that a variety of factors, including direct overflight, the fear of crashes, vibration, and concerns over pollution, are contributory to the number of noise complaints received from areas outside of the CNEL 65 dB noise contour at airports.

The preceding has been an overview of the single-event noise assessment methodology used in evaluating noise conditions at Yolo County Airport, and the effects of noise on people. A review of

the above-cited studies indicates that the cumulative and single-event noise levels associated with existing and projected levels of aircraft activity at Yolo County Airport would not result in any significant adverse impacts on people, other than the occasional annoyance associated with overflights by noisy aircraft, including short-term speech interruption, potential sleep interference, and fear responses from factors other than noise.

Any other adverse effects of noise on people as a result of aircraft noise are associated with airports significantly larger than Yolo County Airport and having more operations by larger, noisier aircraft. In addition, any such impacts are associated with very high cumulative noise levels, i.e., in excess of CNEL 70dB.
APPENDIX I

AIR QUALITY METHODOLOGY AND ASSUMPTIONS
APPENDIX I:
AIR QUALITY METHODOLOGY AND ASSUMPTIONS

NOTE:

The Urbemis5 computer model was used to assess potential air quality impacts from the Master Plan project and project alternatives. Input for Yolo County conditions were used to override default settings (where appropriate) in the model. The total organic gases (TOG) estimate provided by Urbemis5 were converted to reactive organic compounds (ROC) or reactive organic gases (ROG) by the factors specified by the AQMD.

The following pages contain the output data from the Urbemis5 model for surface traffic emissions, and APR-42 aircraft emissions.
APPENDIX I
AIRCRAFT EMISSION FACTORS AND CALCULATIONS

Methodology

The basic methodology for calculating aircraft emissions begins with a determination of aircraft fleet mix and activity levels. The fleet mix at Yolo County Airport is entirely general aviation (as compared with air carrier or military) aircraft.

The landing/takeoff (LTO) cycle provides a basis for calculating aircraft emissions. During each mode of operation, the aircraft engines operate at a fairly standard power setting for a given aircraft category. Emissions for one complete cycle for a given aircraft can be calculated by knowing emission factors for specific aircraft engines at those power settings. Then, if the activity of all aircraft in the modeling zone can be determined for the inventory period, the total emissions can be calculated.

Pollutant Emissions

Aircraft pollutants of significance are hydrocarbons (HC), carbon monoxide (CO), oxides of nitrogen (NOx), sulfur dioxide (SO₂), and particulates (PM_{10}). The factors that determine the quantity of pollutant emitted are the emission index for each operating mode (pounds of pollutant per 1000 pounds of fuel consumed), the fuel consumption rate, and duration of each operating mode. HC and CO emission indexes are very high during the taxi/idle phases when aircraft engines are at low power and operate at less than optimum efficiency. The emission indexes fall as the aircraft moves into the higher power operating modes of the LTO cycle. Thus, operation in the taxi/idle mode, when aircraft are on the ground at low power, is a significant factor in calculating total HC and CO emissions. NOx emissions, on the other hand, are low when engine power and combustion temperature are low but increase as the power level is increased and combustion temperature rises. Therefore the takeoff and climbout modes have the highest NOx emission rates.

Sulfur emissions typically are not measured when aircraft engines are tested. In evaluating sulfur emissions, it is assumed that all sulfur in the fuel combines with oxygen during combustion to form sulfur dioxide. Thus, sulfur dioxide emission rates are highest during takeoff and climbout when fuel consumption rates are high. Nationally the sulfur content of fuel remains fairly constant from year to year at about 0.05% wt. for commercial jet fuel, 0.025% wt. for military fuel, and 0.006% wt. for aviation gasoline.

Particulates form as a result of incomplete combustion. Particulate emission rates are somewhat higher at low power rates than at higher rates since combustion efficiency improves at higher engine power. However, particulate emissions are highest during takeoff and climbout because the fuel flow rate also is high. It is particularly difficult to estimate the emissions of this pollutant. Direct measurement of particulate emissions from aircraft engines typically are not available, although emission of visible smoke is reported as part of the engine certification procedure.

General Aviation Aircraft Emissions

Defining the mix and activity level of general aviation aircraft is more difficult than for commercial aviation. The FAA does not track operations by aircraft model for general aviation aircraft and no other sources for these data exist. Whatever information is generally available comes from the State or from the operations officials at individual airports. Detailed model information for aircraft operating in the inventory area is difficult to locate, and may add only relatively small improvement in accuracy to the emissions inventory compared to treating
general aviation as though they were made up of a representative mix of aircraft. A single emission index can be used which is made up of a representative fleet mix, which gives a rough estimate of emissions for the category. The following indexes were calculated based on 1988 fleet data for general aviation aircraft by the EPA:

- HC 0.394 pounds per LTO
- CO 12.014 pounds per LTO
- NO₂ 0.065 pounds per LTO
- SO₂ 0.010 pounds per LTO

**Calculations (1996 Average Day Operations)**

\[
\begin{align*}
\text{HC} &= 0.394 \text{ LBS/LTO} \times 164.4 \text{ Daily OPS / 2 (}=\text{LTO}) = 32.39 \text{ LBS/Day} \\
\text{CO} &= 12.014 \text{ LBS/LTO} \times 164.4 \text{ Daily OPS / 2 (}=\text{LTO}) = 987.55 \text{ LBS/Day} \\
\text{NO}_2 &= 0.065 \text{ LBS/TTO} \times 164.4 \text{ Daily OPS / 2 (}=\text{LTO}) = 5.34 \text{ LBS/Day} \\
\text{SO}_2 &= 0.010 \text{ LBS/LTO} \times 164.4 \text{ Daily OPS / 2(}=\text{LTO}) = 0.62 \text{ LBS/Day}
\end{align*}
\]

**Calculations (2015 Average Day Operations)**

\[
\begin{align*}
\text{HC} &= 0.394 \text{ LBS/LTO} \times 276.8 \text{ Daily OPS / 2 (}=\text{LTO}) = 54.53 \text{ LBS/Day} \\
\text{CO} &= 12.014 \text{ LBS/LTO} \times 276.8 \text{ Daily OPS / 2(}=\text{LTO}) = 1,662.74 \text{ LBS/Day} \\
\text{NO}_2 &= 0.065 \text{ LBS / LTO} \times 276.8 \text{ Daily OPS / 2(}=\text{LTO}) = 9.00 \text{ LBS/Day} \\
\text{SO}_2 &= 0.010 \text{ LBS/LTO} \times 276.8 \text{ Daily OPS / 2(}=\text{LTO}) = 1.38 \text{ LBS/Day}
\end{align*}
\]

**Sources**


PROJECT NAME: Yolo Co. Airport Master Plan (1996)  Date: 10-03-1997

Project Area: Sacramento

Analysis Year: 1996  Temperature (F): 75  Season: Summer

EMFAC Version: Emfac7f1.1(12/93)

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Vehicle Assumptions:

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Project Area: Sacramento

Analysis Year: 2015  Temperature (F): 75  Season: Summer

EMFAC Version: Emfac7fl.1(12/93)

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APPENDIX J

RECORD OF PUBLIC HEARINGS AND WORKSHOPS
APPENDIX J:
RECORD OF PUBLIC HEARINGS AND WORKSHOPS

EA/EIR Technical Advisory Committee (TAC) Meetings & Status Reports

1. Kick-off meeting 1/31/97 – letter of 1/17/97
2. TAC meeting of 3/28/97
4. TAC meeting of 6/13/97
5. TAC meeting of 10/24/97 (First Public Workshop, Woodland) – letter of 10/2/97

First Public Workshop

1. 10/2/97: announcement of workshop and availability of Draft EA/EIR
2. Workshop and TAC meeting held at County Administration Center, Woodland
3. Agenda of Workshop
4. Audience sign-in sheet

Second Public Workshop

1. 10/2/97: schedule showing Second Public Workshop to be on 12/2/97 at Lilliard Hall
2. 11/5/97: announcement (certified by Clerk of Board of Supervisors on 11/26/97) of workshop, agenda, and availability of Draft EA/EIR document
3. 12/2/97: revised CDA draft EA/EIR public review and comments dates
4. Audience sign-in-sheets
5. 12/22/97: transmittal (via certified mail) of second public workshop audio tapes to Robert Verkade

First Public Hearing by the Planning Commission (December 10, 1997 at 8:30a.m.)

1. GSA memo of 10/2/97 indicated hearing to be 12/2/97 – notice by Planning Department at 12/2/97 workshop that hearing date was changed to 12/10/97.
2. Notice of hearing date change issued by Planning department (received 11/21/97).
3. Daily Democrat notice for 12/10/97 special hearing printed 11/24/97 (proof)
4. Schedule of meeting location and date provided during 12/2/97 second public workshop.
5. Agenda for the public hearing during a special meeting of the Planning Commission

First Public Hearing by the Board (January 20, 1998 at 10:15a.m.)

1. Advance informal notice at 12/2/97 workshop
2. Advance notice mailed 1/7/98
3. Board of Supervisors report
4. Board of Supervisors minute order

Third Public Workshop (April 22, 1998)

1. Notice to Advisory Committees
2. Public Notice
3. Agenda
4. Draft Airport Management Policies
5. Synopsis of EA/EIR and Master Plan changes (P&D Consultants handout)
To:  Members, EIR Technical Advisory Committee
     Members, Airport Development Advisory Committee
     Members, Aviation Advisory Committee
     Airport Renters and Tenants
     Interested Community Members

From: Keith Ott, Director of General Services

Date: October 2, 1997

Subject: Notice of Next Technical Advisory Committee Meeting and Schedule of EA/EIR Key Events

The purpose of this Notice is to advise you of the next Technical Advisory Committee Meeting, the availability of materials to be reviewed, and the schedule of events for the coming months.

The **next Technical Advisory Committee Meeting** will be held at:
1:30 p.m., Friday, October 24, 1997,
in Room B-03 (Atrium Training Room)
in the County Administration Center, 625 Court St, Woodland.

That meeting's main agendized business will be a public workshop to review the **draft EA/EIR** and the **draft management policies & standards** related to the **draft Airport Master Plan**.

All are welcome to attend and participate.

The **draft EA/EIR** and the **draft management policies & standards** will be mailed to members of the EIR Technical Advisory Committee, the Airport Development Advisory Committee, and the Aviation Advisory Committee on October 10, 1997.

Copies of this material will be available without charge to the public at the Administration Center, Room 203 on the above date between the hours of 8 am - 5 pm.

The schedule of events for the coming months is shown on the attached page.

c: Chairman and members of the Yolo County Board of Supervisors
   Chairman and members of the Yolo County Planning Commission
   County Administrator
   Director of Community Development
   P&D Consultants
The Draft Airport Master Plan EA/EIR Review
Schedule of Events as of October 1, 1997

The following schedule lists the key dates for planned public workshops and hearings as well other important events:

Oct 10 - copies of EA/EIR document and draft management policies available for public review

Oct 24 - first public workshop at next technical advisory committee meeting (at the Administration Center in the afternoon)

Oct 31 - 31 Day Notice of EA (FAA requirement)

Nov 4 - Notice of Completion (begins 45 day public review)

Dec 2 - second public workshop (at Lilliard Hall in the evening)

Dec 3 - Planning Commission first public hearing (at their regular meeting)

Dec 19 - public review period ends

Jan 20 - Board receives staff report of public comment and holds public hearing; refers comments to Planning Commission

......... - Planning Commission adopts EA/EIR and recommends certification to Board

......... - Board certifies EIR, adopts overriding CEQA language, adopts master plan, and sends master plan, EA/EIR to FAA ('77 Airport Specific Plan rescinded)
YOLO COUNTY AIRPORT
MASTER PLAN EA/EIR
TECHNICAL ADVISORY COMMITTEE MEETING
1:00 p.m. Atrium Training Conference Room
625 Court Street, Woodland Ca 95695

June 13, 1997

AGENDA

1. Public Comments

2. EA/EIR Status

3. Airport Drainage

4. Federal Aviation Administration (FAA) review of Airport Layout Plan (ALP)

5. New Business

6. Next Meeting
## Sign In Sheet

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<th>Name</th>
<th>Address</th>
<th>Affiliation</th>
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<td>M. McCarty</td>
<td>1500 Broadway, Oakview</td>
<td></td>
</tr>
<tr>
<td>Jill L.</td>
<td>4553 W. 1st St., Redding</td>
<td></td>
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<tr>
<td>Edwin K.</td>
<td>35028 Redwood Ln., Davis</td>
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<tr>
<td>Bob Button</td>
<td>27878 Hwy 128, Winters</td>
<td>Yolo Aviation</td>
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<td>Lynn Terry</td>
<td>County of Yolo Public Works</td>
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<tr>
<td>Debbie Parcelli</td>
<td>254-52 Co. 1st, Davis</td>
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<tr>
<td>Sue E. Watts</td>
<td>P.O. Box 147, Woodland, CA 95776</td>
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<tr>
<td>Deb A. Lilley</td>
<td>1000 Sacramento, Woodland</td>
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AGENDA

Technical Advisory Committee Meeting
Airport Master Plan Environmental Assessment (EA)/Environmental Impact Report (EIR)

FIRST PUBLIC WORKSHOP

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<th>Who</th>
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<td>Introduction of Technical Advisory Committee Members</td>
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<td>15 min</td>
<td>Hamblin</td>
<td>The EA/EIR Process (under NEPA &amp; CEQA) and Schedule</td>
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<tr>
<td>1 hour</td>
<td>McClintock</td>
<td>The Draft EA/EIR document presentation and discussion (1)</td>
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<td>30 min</td>
<td>Rillera</td>
<td>Draft Airport Management Policies &amp; Standards for All Aviator Operators presentation &amp; discussion (1)</td>
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<td>30 min</td>
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<td>Additional time for issues or questions developed during presentations and discussions</td>
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(1) discussion time may be limited during any single topic in order to facilitate reviewing the entire set of material presented to the committee and public ... time is set aside at the end of the agenda to address any item of which committee members or public wish to continue discussing ... some questions may require research before an appropriate response is reasonable and if such is the case, that item will be agendized for the second public workshop to be held at Lilliard Hall on December 2, 1997 at 7:30 p.m.
The Draft Airport Master Plan EA/EIR Review
Schedule of Events as of October 1, 1997

The following schedule lists the key dates for planned public workshops and hearings as well other important events:

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Dec 19 - public review period ends

Jan 20 - Board receives staff report of public comment and holds public hearing; refers comments to Planning Commission

Feb 4th - Planning Commission adopts EA/EIR and recommends certification to Board and adoption of the master plan.

Board certifies EIR, adopts overriding CEQA language, adopts master plan, and sends master plan, EA/EIR to FAA ('77 Airport Specific Plan rescinded)

* Complete changes during this period (big push)
** to SACOG after FAA final comment.

- master plan
- EA/EIR

[Handwritten notes:]
- final EIR/EA
- Mike McC.
- 2nd Master Plan
To:        Members, Airport Development Advisory Committee  
                  Members, Aviation Advisory Committee  
                  Members, Master Plan EA/EIR Technical Advisory Committee 
                  Airport Renters and Tenants  
                  Interested Community Members  

From:     Keith Ott, Director of General Services  

Date:     November 5, 1997  

Subject:  Joint Airport Committees Meeting, Tuesday, December 2, 1997; and  
                  Notice of Airport Master Plan/EIR Technical Advisory Committee Meeting  
                  and SECOND PUBLIC WORKSHOP, Tuesday, December 2, 1997  

Please note the time of meeting is 7:30 p.m.  

The West Plainfield Airport Development Advisory Committee and the Yolo County  
Aviation Advisory Committee will meet at a joint session, Tuesday, December 2, 1997 at  
7:30 p.m., in the Lillard Hall, CR 95, Davis, CA.  

The purpose of this Notice is also to advise of the next Technical Advisory Committee  
Meeting, the SECOND EA/EIR PUBLIC WORKSHOP, the availability of EA/EIR  
materials to be reviewed, and the current schedule of EA/EIR review events.  

A Joint Committees Meeting, Technical Advisory Committee Meeting & EIR PUBLIC WORKSHOP  
will be held at 7:30 p.m., Tuesday, December 2, 1997,  
at Lillard Hall, CR 95, Davis, CA  

That meeting’s main agendized business will be a public workshop to review the draft EA/EIR and the  
draft management policies & standards related to the draft Airport Master Plan.  

A preliminary agenda is attached to this notification.  

C:        Chairman and members of the Yolo County Board of Supervisors  
                  Chairman and members of the Yolo County Planning Commission  
                  County Administrator  
                  Director of Community Development  
                  P&D Consultants
Agenda
Joint Meeting
Aviation Advisory and the Airport Development Advisory Committees
December 2, 1997 ... 7:30 p.m.
Lillard Hall, West Plainfield Fire Station
County Roads 95 (1/2 mile south of CR 29)

1. Call to Order: 7:30 p.m.

2. Approve Agenda for December 2, 1997 joint meeting

3. Approve Minutes of June 3, 1997 meeting (AAC/ADAC)

4. Public Comment. An opportunity for members of the public to address the committees on subjects directly related to the Airport that are not on the agenda. The committees reserve the right to impose a reasonable limit in time afforded to any topic or to any individual speaker. Comment on an agenda item will be accepted at the time that item is discussed in the agenda.

5. Old Business.
   a. Yolo Sportsmen Association Safety Report

   a. SECOND PUBLIC WORKSHOP (Airport Master Plan EA/EIR)

      | Time  | Who   | Item                                                                 |
      |-------|-------|----------------------------------------------------------------------|
      | 10 min| Ott   | Introduction of Technical Advisory Committee Members              |
      | 15 min| Hamblin | The EA/EIR Process (under NEPA & CEQA) and Schedule                 |
      | 1 hour| McClintock | The Draft EA/EIR document presentation and discussion (1) |
      | 30 min| Rillera | Draft Airport Management Policies & Standards for All Aviator Operators presentation & discussion (1) |
      | 30 min|       | Additional time for issues or questions developed during presentations and discussions |

(1) discussion time may be limited during any single EA/EIR topic in order to facilitate reviewing the entire set of material presented to the committees and the public ... time is set aside at the end of the agenda to address any item of which committee members or public wish to continue discussing ... the schedule of EA/EIR review events for the coming months is shown on the attached page.
Please contact the General Services Agency if you wish a copy of the EA/EIR to be available to you at Lilliard Hall. Copies of this material are available, if requested beforehand, without charge to the public.

It is highly recommended that copies of the draft EA/EIR be obtained as early as possible before the December 2nd meeting in order that participants can read and study the report. Copies are available before the meeting at the service counter of the General Services Agency, Room 203, 625 Court Street, Woodland, CA. (916) 666-2226

7. Set time and date for next meeting:

8. Adjourn.

I declare under penalty of perjury that the foregoing agenda was posted November 26, 1997 at 5:00 p.m. on the bulletin board at the east entrance of the Erwin Meier Administration Center, 625 Court Street, Woodland, California

Paula M. Cooper, Clerk of the Board of Supervisors

By: [Signature]
Deputy
NOTICE OF HEARING

The Regular Meeting of the Yolo County Planning Commission has been canceled. A Special Meeting has been scheduled for December 10, 1997.

The Yolo County Planning Commission will consider the following matters on Wednesday, December 10, 1997 in the Yolo County Planning Commission Meeting Room, 292 West Beamer Street, Woodland, California at 8:30 a.m. or as soon thereafter as the matter may be heard.

Consent Agenda
There are no items on the Consent Agenda.

Regular Agenda

A public hearing to receive comments and a presentation of the draft Environmental Impact Report and Environmental Assessment for the Yolo County Airport Master Plan update (SCH #97092092). The proposed Airport Master Plan update will guide the physical development of the Yolo County Airport for the next 20 years. (Keith Ott/General Services)

97-065 - A request for a two year extension of time for a Conditional Use Permit to allow for the construction of a 4000 foot fruit stand. Property is located on the southeast corner of the CR 104 (Mace Blvd.) and CR 32A, north of Davis in the Agricultural General (A-1) zone. A Negative Declaration was prepared. APN: 033-290-73. Applicant: Darab Borzorgchahi (M. Hamblin)

97-053 - A request for a Parcel Map and a Variance to establish a homesite on a 2.77 acre parcel occupied by a designated historic landmark. Property is located at 41820 South River Road, across from Courtland, Merriit Island in the Agricultural General (A-1) zone. A Negative Declaration has been prepared. APN: 043-040-18 Owner: Burr (C. Eaton).

97-050 - A consideration of a Tentative Parcel Map to divide a 78 acre parcel into a 38 acre and a 40 acre remainder parcel. Property is located south of the County Fair Mall on the east side of East Street near Woodland in the Agricultural General (A-1) zone. A Negative Declaration has been prepared. APN: 041-070-27 Applicant/Owner: Sievers/Prudler, Etal. (D. Flores)

97-052 - A request for rezoning from Agricultural General (A-1) to an Agricultural Industrial (AGI) and an amendment to the Conditional Use Permit ZF #2164 to add a mobile equipment shop, small tools shop, warehouse, and commercial office space to the existing aggregate processing plant. The property is located on the east side of State Highway 113 and south of CR 28, north of Davis. A Negative Declaration has been prepared. APN: 041-090-12 and 16. Owner: Teichert Land Company (D. Morrison)

A report on the procedure for creating historic districts in Yolo County. (C. Eaton)

A report on the granting of public hearing continuances. (J. Bencomo)

A report on the possible zoning infraction regarding Cableview of Esparto. (J. Bencomo)

The election of a new chairman and vice chairman for the Planning Commission.

Yolo County Planning Commission will consider these matters at the time and place stated above. Copies of staff reports and the environmental document for the projects are on file in the office of the Yolo County Community Development Agency, 292 West Beamer Street, Woodland, California. All interested parties should appear and will be provided an opportunity during the public hearing to present relevant information.
DRAFT AIRPORT MASTER PLAN EIR/EA PUBLIC REVIEW & COMMENT DATES

October 10, 1997 to December 19, 1997 - 70 day public review and comment period for the environmental impact report/environmental assessment (EIR/EA). Public comments accepted. Written comments can be sent to the Yolo County General Services Agency, 625 Court St. Rm. 203, Woodland, CA 95695.

October 24, 1997 - first public workshop on EIR/EA. Presentation to Yolo County Airport EIR/EA Technical Advisory Committee. County Administration Building Atrium Training Room. Public comments accepted.

December 2, 1997 - second public workshop on EIR/EA. Presentation at Lillard Hall to joint meeting of airport advisory committees. Public comments accepted.

December 10, 1997 - Yolo County Planning Commission conducts first public hearing to receive comments on EIR/EA. No certifying action of the EIR or adoption of the Airport Master Plan by the Commission will occur at this meeting.

*January 20, 1998 - Yolo County Board of Supervisors conducts first public hearing to receive comments on EIR/EA. No certifying action of the EIR or adoption of the Airport Master Plan by the Board will occur at this meeting.

*February 4, 1998 - Planning Commission conducts second public hearing to consider certification of the EIR, adoption of the Airport Master Plan and make a recommendation to the Board of Supervisors. County of Yolo to certify EIR as required by the California Environmental Quality Act (CEQA) and Guidelines. Public comments accepted.

TO BE ANNOUNCED (PUBLICLY NOTICED) - Board of Supervisors conducts second public hearing to consider the recommendations by the Planning Commission to certify the EIR and adopt the Airport Master Plan. Public comments accepted.

County adopted Airport Master Plan and certified EIR submitted to the FAA for their review and approval. FAA review of the Airport Master Plan includes the conducting of an environmental review as required by the National Environmental Policy Act (NEPA). The FAA uses the county prepared environmental document as an EA for the purpose of determining whether an Environmental Impact Statement (EIS) or Finding Of No Significant Impact (FONSI) will be prepared in accordance with NEPA.

FAA publicly notices prepared EIS or FONSI in the National Register for a 30 day public comment period.

FAA certifies EIS or FONSI and approves Airport Master Plan.

* Tentative Dates
<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Richard Geotzahn</td>
<td>36189 Rd 30</td>
<td>Rich Fields Farm</td>
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<tr>
<td>Ed Baughman</td>
<td>95599 Rd 96</td>
<td>Boede, Athene</td>
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<tr>
<td>James Lutte</td>
<td>36 230 Rd 29</td>
<td>Led</td>
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<tr>
<td>Dan Garrett</td>
<td>25361 Rd 96</td>
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<tr>
<td>Lois Richerson</td>
<td>24700 Road 96, Davis</td>
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<td>Jim Michel</td>
<td>CALTRANS SACRAMENTO</td>
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<tr>
<td>Bill Priestner</td>
<td>35956 Anderdon Ln</td>
<td></td>
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<td>Ing. Prister</td>
<td>35956Acedria Ln</td>
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<tr>
<td>Gary Hedrick</td>
<td>25250 Caribou Ave</td>
<td>WPFPA</td>
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<tr>
<td>Kurt Hedrick</td>
<td>3,800 Caribou Ave</td>
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<tr>
<td>Nan Hechler</td>
<td>38750 Yellowstone</td>
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<td>Eun Myoung</td>
<td>35683 Yosemite Ave</td>
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<td>24340 Averell Ave</td>
<td>PRESTAL Averell</td>
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<tr>
<td>John Chenoweth</td>
<td>34320 County Rd 29</td>
<td>WDF</td>
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<tr>
<td>Nick Seyer</td>
<td>35427 County Rd 51, Davis</td>
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<tr>
<td>Ayana Pollock</td>
<td>Yolo Co., P.O.</td>
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<tr>
<td>William Loeck</td>
<td>35720 Yellowstone</td>
<td>Davis, Local Resident</td>
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<tr>
<td>Ed Hetchman</td>
<td>35867 Yosemite Ave, Davis</td>
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<td>David Hrd</td>
<td>35692 Academic Lane, Davis</td>
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<tr>
<td>Michael Bowler</td>
<td>24920 Rd 96, Davis</td>
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<tr>
<td>Cris E. Borden</td>
<td>36600 Lt. Lind, IA, Ln, Davis</td>
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<td>Ruth Obergan</td>
<td>35350 County Road 31, Davis</td>
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<td>Jim Wurzbahn</td>
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<tr>
<td>MARY SCHIEDT</td>
<td>36205 Road 29, Woodland, 95695</td>
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<td>Carol J. Smith</td>
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<td>J. N. Davis</td>
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<tr>
<td>Mary Chenowt</td>
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<td>Local Resident</td>
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<tr>
<td>Vera Fozz</td>
<td>35340 Rd 29, Woodland</td>
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<tr>
<td>Ginn Wilson</td>
<td>35343 Rd 29, Woodland</td>
<td>Res. Retired</td>
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<tr>
<td>Eleanor Wood</td>
<td>P.O. Box 316 Davis</td>
<td>Airport Dev Co</td>
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<tr>
<td>Debbie Parrella</td>
<td>25450 Co. Rd. 95 Davis</td>
<td>ADAC</td>
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COUNTY OF YOLO
COMMUNITY DEVELOPMENT AGENCY • 292 WEST BEAMER STREET • WOODLAND CA, 95695

SPECIAL MEETING OF THE YOLO COUNTY PLANNING COMMISSION

PLANNING COMMISSION AGENDA

DATE: Wednesday, December 10, 1997

Please note: There will be no Meeting held on December 3, 1997

TIME: The meeting will begin at 8:30 a.m.

LOCATION: Yolo County Planning Commission Chambers
292 West Beamer Street
Woodland, CA 95695

1. CALL TO ORDER 8:30 a.m.

2. ADOPTION OF MINUTES OF THE PREVIOUS MEETINGS

3. PUBLIC REQUESTS

The opportunity for members of the public to address the Planning Commission on any subject relating to the Planning Commission, but not relative to items on the present agenda. The Planning Commission reserves the right to impose a reasonable limit on time afforded to any individual speaker.

4. CORRESPONDENCE

The following items of interest and correspondence have been submitted to the Yolo County Planning Commissioners for their consideration, response and/or discussion, if desired.

4.1 A letter from Lester Farms regarding the Trical application.
4.2 The Annual Report of the Community Development Agency

5. CONSENT AGENDA

Items on the Consent Agenda are believed by staff to be non-controversial and consistent with the Commission's previous instructions to staff. All items on the Consent Agenda may be
adopted by a single motion. If any commissioner or member of the public questions an item should be removed from the Consent Agenda and be placed in the Regular Agenda.

There are no items on the Consent Agenda.

6. **REGULAR AGENDA**

6.1 A public hearing to receive comments and a presentation of the draft Environmental Impact Report and Environmental Assessment for the Yolo County Airport Master Plan update (SCH #97092092). The proposed Airport Master Plan update will guide the physical development of the Yolo County Airport for the next 20 years. (Keith Ott/General Services)

6.2 **95-045** - A request for a two year extension of time for a Conditional Use Permit to allow for the construction of a 4000 foot fruit stand. Property is located on the southeast corner of the CR 104 (Mace Blvd.) and CR 32A, north of Davis in the Agricultural General (A-1) zone. A Negative Declaration was prepared. APN: 033-290-73. Applicant: Darab Borzorgchami (M. Hamblin)

6.3 **97-053** - A request for a Parcel Map and a Variance to establish a homesite on a 2.77 acre parcel occupied by a designated historic landmark. Property is located at 41820 South River Road, across from Courtland, Merrit Island in the Agricultural General (A-1) zone. A Negative Declaration has been prepared. APN: 043-040-18 Owner: Burr (C. Eaton)

6.4 **97-050** - A consideration of a Tentative Parcel Map to divide a 78 acre parcel into a 38 acre and a 40 acre remainder parcel. Property is located south of the County Fair Mall on the east side of East Street near Woodland in the Agricultural General (A-1) zone. A Negative Declaration has been prepared. APN: 040-070-27 Applicant/Owner: Sievers/Prudler, Etal. (D. Flores)

6.5 **97-052** - A request for rezoning from Agricultural General (A-1) to an Agricultural Industrial (AGI) and an amendment to the Conditional Use Permit ZF #2154 to add a mobile equipment shop, small tools shop, warehouse, and commercial office space to the existing aggregate processing plant. The property is located on the east side of State Highway 113 and south of CR 29, north of Davis. A Negative Declaration has been prepared. APN: 041-090-12 and 16. Owner: Teichert Land Company (D. Morrison)

6.6 A report on the procedure for creating historic districts in Yolo County. (C. Eaton)

6.7 A report on the granting of public hearing continuances. (J. Bencomo)

6.8 A report on the possible zoning infraction regarding Cableview of Esparto. (J. Bencomo)

6.9 The election of a new chairman and vice chairman for the Planning Commission.

7. **DIRECTOR’S REPORT**

A report by the Director on the recent Board of Supervisor’s meetings on items relevant to the Planning Commission. An update of the Community Development Agency activity for the month. No discussion by other Commission members will occur except for clarifying questions. The Commission or an individual Commissioner can request that an item be placed on a future agenda for discussion.
8. COMMISSION REPORTS

Reports by Commission members on information they have received and meetings they have attended which would be of interest to the Commission or the public. No discussion by other Commission members will occur except for clarifying questions. The Commission or an individual Commissioner can request that an item be placed on a future agenda for discussion.

9. ADJOURNMENT

The next regular meeting of the Yolo County Planning Commission has been tentatively scheduled for February 4, 1998.

Any person who is dissatisfied with the decisions of this Planning Commission may appeal to the Board of Supervisors by filing with the Clerk of that Board within fifteen days a written notice of appeal specifying the grounds. The Board of Supervisors may sustain, modify, reject or overrule this decision. There will be an appeal fee payable to the Community Development Agency and the Clerk of the Board of Supervisors.

Respectfully submitted by,

John Bencomo, Director
Yolo County Community Development Agency
TO: Harry Walker, Chairperson, and Members of the Yolo County Planning Commission

FROM: Mark R. Hamblin, Planner

SUBJECT: Yolo County Airport EA/EIR Presentation And Receiving Of Public Comments

DATE: December 10, 1997

RECOMMENDED ACTION

That the Planning Commission:

(1) Receive public comments on the Yolo County Airport EA/EIR.

REASON FOR RECOMMENDED ACTION

The County of Yolo has made available for public review a joint document involving a draft environmental impact report (EIR)/environmental assessment (EA) for the Yolo County Airport Master Plan update (SCH #97092092). The proposed Airport Master Plan update will guide the physical development of the Yolo County Airport for the next 20 years. A copy of the draft EIR/EA has been made available for a 70 day review period starting October 10, 1997 and ending on December 19, 1997 at the Yolo County General Services Agency, 625 Court Street, Room 203, Woodland, CA.

Today's Planning Commission meeting will be the first public hearing on the environmental document (EA/EIR) prepared for the Airport Master Plan update to receive public comments. Michael McClintock representing P&D Consultants, the consultant for the airport EA/EIR will present a summary of the environmental document. The Planning Commission will not be making a certifying action on the EIR or approval of the Airport Master Plan at this meeting. The Planning Commission is tentatively scheduled to conduct these actions and its recommendation to the Board of Supervisors during the February 4, 1998 Commission meeting.

The Board of Supervisors is tentatively scheduled to receive public comments on the Airport EA/EIR on January 20, 1998. Board certification of the EIR document and approval actions are tentatively scheduled in late February or early March.

AGENDA ITEM: 6.1
BACKGROUND

The proposed Airport Master Plan anticipates future growth in corporate and general aviation aircraft operations. This growth is in pace with forecast growth in population and income not only within Yolo County, but also along the Highway I-80 corridor extending from Solano County eastward into Sacramento County. To meet the changing needs of an expanding market, a systematic analysis of airport development needs was necessary. The Airport Master Plan provided this systematic approach to assist the County with identifying and carrying out a technically sound program for the anticipated short (0-5 year), intermediate (5-10 year) and long term (10-20 year) development needs of the County Airport.

The Master Plan identifies existing (1995) conditions and development issues, provides forecasts of aviation activity, clarifies the demand for services and facility requirements (for both air side and land side operation), and recommends specific improvements to the airport. Conceptual plans are provided in the Master Plan as elements of a phased implementation program to respond to projected demand and to manage growth. To augment the planning of expanded services and facilities, a financial feasibility analysis focuses on the commitments necessary to carry out the proposed Master Plan development projects. Accordingly, estimated costs and possible financing arrangements are shown for initial, intermediate and long term development projects.

EXHIBIT "1"- Airport EA/EIR distributed at the November 12, 1997 Planning Commission Meeting.
STATE OF CALIFORNIA,  
County of Yolo

THE DAILY DEMOCRAT

a newspaper of general circulation, printed and published daily in the City of Woodland, County of Yolo, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Yolo, State of California, under the date of June 30, 1952, and in accordance with the provisions of Title 1, Division 7, of the Government Code of the State of California; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issue of said newspaper and in any supplement thereof on the following dates to-wit:

November 24

all in the year 1997.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Woodland

California, this 24th day of November, 1997

[Signature]
To: Members, Airport Development Advisory Committee  
   Members, Aviation Advisory Committee  
   Members, Master Plan EA/EIR Technical Advisory Committee  
   Airport Renters and Tenants  
   Interested Community Members

From: Keith Ott, Director of General Services

Date: January 5, 1998

Subject: Informal Notice of the Board of Supervisors’ First Public Hearing on the Airport Master Plan Draft Environmental Impact Report/Environmental Assessment

The purpose of this informal notice is to provide advance information of the time and date for the first public hearing on the airport master plan draft Environmental Impact Report/Environmental Assessment. The formal notice will be posted by the Clerk of the Board later in the regular manner.

The first public hearing by the Board of Supervisors regarding the Airport Master Plan Environmental Impact Report/Environmental Assessment is being scheduled for 10:15 a.m. on January 20, 1998 in the County Board of Supervisors’ chambers in Woodland.

Copies of the report to the Board can be obtained on request on Friday, January 16, 1998. Confirmation of the time for the public hearing before the Board on January 20 can be obtained on the same date by calling 666-8115.

It is requested that any written comments specific to the Airport draft master plan EIR/EA be received by the General Services Agency (attn: Keith Ott) no later than January 30, 1998, so that the comments can be addressed in the final EIR/EA prior to the document’s presentation to the Planning Commission on March 4, 1998.

c: Chairman and members of the Yolo County Board of Supervisors  
   Chairman and members of the Yolo County Planning Commission  
   County Administrator  
   Director of Community Development  
   P&D Consultants
"The World according to WIZ"

updated January 7, 1998

COUNTY ROAD 27

WALTER JARRETT
33485 COUNTY RD 27
WOODLAND CA 95695

JOSEPH CORCORAN
33385 COUNTY RD 29
WOODLAND CA 95695

RENEE LANCASTER
34505 COUNTY RD 29
WOODLAND CA 95695

COUNTY ROAD 29

DUANE CHAMBERLAIN
34530 COUNTY RD 29
WOODLAND CA 95695

JONAS LITTERMEL
34670 COUNTY RD 29
WOODLAND CA 95695

BERT BANGERT
34737 COUNTY RD 29
WOODLAND CA 95695

WILLIAM BAKER
34750 COUNTY RD 29
WOODLAND CA 95695

LAURA SHILLER
34835 COUNTY RD 29
WOODLAND CA 95695

CHRISTOPHER & MARY FOGUE
34911 COUNTY RD 29
WOODLAND CA 95695

RESIDENT
35750 COUNTY RD 29
WOODLAND CA 95695

MARY SCHIETT
36205 COUNTY RD 29
WOODLAND CA 95695

VERA FOGUE
34911 COUNTY RD 29
WOODLAND CA 95695

EDWARD ROBINSON
36209 COUNTY RD 29
WOODLAND CA 95695

JAMES WILSON
36343 COUNTY RD 29
WOODLAND CA 95695

HANS ANDERSON
37495 COUNTY RD 29
WOODLAND CA 95695

COUNTY ROAD 30

FRED WOOD
36037 COUNTY RD 30
DAVIS CA 95616

JIM MEHLSCHAU
36085 COUNTY RD 30
DAVIS CA 95616

RICHARD ROCHE III
35141 COUNTY RD 30
DAVIS CA 95616

RICHARD GROTJAHN
36189 COUNTY RD 30
DAVIS CA 95616

DAVID STILES
36359 COUNTY RD 30
DAVIS CA 95616

RESIDENT
36370 COUNTY RD 30
DAVIS CA 95616

GERALD DE CAMP
PO Box 73013
DAVIS CA 95617-3013

COUNTY ROAD 31

MICHAEL FISHER
34254 COUNTY RD 31
DAVIS CA 95616

ALEJANDRO TEJEDA
34258 COUNTY RD 31
DAVIS CA 95616

PHILIP KITCHEN
35125 COUNTY RD 31
DAVIS CA 95616
MATTHEW HASELTINE
35270 COUNTY RD 31
DAVIS CA 95616

DONNA BILICK
35301 COUNTY RD 31
DAVIS CA 95616

STANLEY HUGGINS
35376 COUNTY RD 31
DAVIS CA 95616

RAYMOND SPORE
35383 COUNTY RD 31
DAVIS CA 95616

HENRY SEGALL
35427 COUNTY RD 31
DAVIS CA 95616

JOE MARKO
35485 COUNTY RD 31
DAVIS CA 95616

KENNETH TAYLOR
35485 COUNTY RD 31
DAVIS CA 95616

ROBERT TANGREN
35490 COUNTY RD 31
DAVIS CA 95616

THOMAS STREET
35675 COUNTY RD 31
DAVIS CA 95616

RESIDENT
36053 COUNTY RD 31
DAVIS CA 95616

JAMES LAMONT
36445 COUNTY RD 31
DAVIS CA 95616

COUNTY ROAD 94

RODNEY FLETCHER
23054 COUNTY RD 94
WOODLAND CA 95695

ROBERT CORCORAN
34680 COUNTY RD 94
WOODLAND CA 95695

COUNTY ROAD 95

VOY STONE
23505 COUNTY RD 95
WOODLAND CA 95695

CAROLYN TANEYHILL
24484 COUNTY RD 95
DAVIS CA 95616

ARVO SCHOEN
24570 COUNTY RD 95
DAVIS CA 95616

DONALD CUMMINGS
24630 COUNTY RD 95
DAVIS CA 95616

JEFFREY RIPPENGALE
25030 COUNTY RD 95
DAVIS CA 95616

JOHN RAMOS
25090 COUNTY RD 95
DAVIS CA 95616

CURRENT RESIDENT
25104 COUNTY RD 95
DAVIS CA 95616

RICHARD CRAVEN
25218 COUNTY RD 95
DAVIS CA 95616

WILBUR REIL
25226 COUNTY RD 95
DAVIS CA 95616

STEVEN MACAULEY
25250 COUNTY RD 95
DAVIS CA 95616

RESIDENT
25254 COUNTY RD 95
DAVIS CA 95616

CHARLES HJERPE
25258 COUNTY RD 95
DAVIS CA 95616

LAURORA TIMM
25340 COUNTY RD 95
DAVIS CA 95616

FRANK MAURER
25344 COUNTY RD 95
DAVIS CA 95616

AL CARDOZA
24700 COUNTY RD 95
DAVIS CA 95616
YELLOWSTONE AVENUE

ALBERT CHAVANES
35610 YELLOWSTONE AVE
DAVIS CA 95616

JOHN FREEBY
35670 YELLOWSTONE AVE
DAVIS CA 95616

KENT COCHRUM
35715 YELLOWSTONE AVE
DAVIS CA 95616

CHARLENE LOGAN
35570 YELLOWSTONE AVE
DAVIS CA 95616

RESIDENT
35895 YELLOWSTONE AVE
DAVIS CA 95616

YOSEMITE AVENUE

GARY ANDERSON
35575 YOSEMITE AVE
DAVIS CA 95616

OLIVER DE LALLA
35680 YOSEMITE AVE
DAVIS CA 95616

ERIC TAVENIER
35683 YOSEMITE AVE
DAVIS CA 95616

ROBERT LANTZ
35760 YOSEMITE AVE
DAVIS CA 95616

CAROLINE KIRKHAM
35815 YOSEMITE AVE
DAVIS CA 95616

EDWARD KETCHAM
35867 YOSEMITE AVE
DAVIS CA 95616

RESIDENT
35900 YOSEMITE AVE
DAVIS CA 95616

CASSIDY LANE

REID BORGWARDT
26505 CASSIDY LN
DAVIS CA 95616

CURRENT RESIDENT
26570 CASSIDY LN
DAVIS CA 95616

JON SWENSON
26575 CASSIDY LN
DAVIS CA 95516

MARY HORTON
26621 CASSIDY LN
DAVIS CA 95616

RESIDENT
26655 CASSIDY LN
DAVIS CA 95616

CURRENT RESIDENT
26677 CASSIDY LN
DAVIS CA 95616

RESIDENT
26681 CASSIDY LN
DAVIS CA 95616

WILLIAM DAVENPORT
26693 CASSIDY LN
DAVIS CA 95616

KELLY HARcourt
26711 CASSIDY LN
DAVIS CA 95616

RESIDENT
26729 CASSIDY LANE
DAVIS CA 95616

LINDA ELLIOTT
26730 CASSIDY LN
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ERIKA JACKSON
26780 CASSIDY LN
DAVIS CA 95616

WILLIAM HEEKIN
26787 CASSIDY LN
DAVIS CA 95616

GERALD HENDERSON
26950 CASSIDY LN
DAVIS CA 95616

CREEKSENDGE ROAD
MICHAEL REID
34431 CREEKSEDE RD
WINTERS CA 95694

WILLIAM LIDER
34567 CREEKSEDE RD
DAVIS CA 95616

DONALD NORTON
34481 CREEKSEDE RD
DAVIS CA 95616

MILT EBERLE
34659 CREEKSEDE RD
DAVIS CA 95616

BEN WOLFF
34677 CREEKSEDE RD
DAVIS CA 95616

MICHAEL RITA
34637 CREEKSEDE RD
DAVIS CA 95616

JAMES YEAGER
34791 CREEKSEDE RD
DAVIS CA 95616

RODERICK MACDONALD
34811 CREEKSEDE RD
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RICHARD HALE
34745 CREEKSEDE RD
DAVIS CA 95616

COLONIA FELIZ

RESIDENT
34905 CREEKSEDE RD
DAVIS CA 95616

CURRENT RESIDENT
34969 COLONIA FELIZ
DAVIS CA 95616

Amy Boyer
34950 COLONIA FELIZ
DAVIS CA 95616

LAWRENCE SNYDER
34977 COLONIA FELIZ
DAVIS CA 95616

RUSSELL BLVD

ANTHONY PESOLA
35130 RUSSELL BLVD
DAVIS CA 95616

RESIDENT
35134 RUSSELL BLVD
DAVIS CA 95616

ELIZABETH CARR
35795 RUSSELL BLVD
DAVIS CA 95616

RESIDENT
36080 RUSSELL BLVD
DAVIS CA 95616

DAVID DEWNSHP
36200 RUSSELL BLVD
DAVIS CA 95616

THORNTON GLIDE
36335 RUSSELL BLVD
DAVIS CA 95616

OUTSIDE OF AIRPORT

LYLE PARKER
4222 ROBINA PL
DAVIS CA 95616

RAY KRONE PRESIDENT
FYCA
645 COOLIDGE ST
DAVIS CA 95616

MIKE SMITH
PO BOX 1560
DAVIS CA 95616

STEVE LEUNG
24271 FAIRWAY DR
DAVIS CA 95616

DARRYL FOUNTAIN
215 EVERGLADE
DIXON CA 95620

WALTER DAVEY
680 E CHESTNUT
DIXON CA 95620
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CHICK ABY
WHIRLYBIRDS INC
24658 AVIATION AVE
DAVIS CA 95616

BRUCE WATTS/DON WRIGHT
WOODLAND AVIAITON INC
PO BOX 1157
WOODLAND CA 95695

RAY FERRELL/DAN O'BRIEN
PRESTAR INC
24390 AVIATION AVE
DAVIS CA 95616-9734

FRANK HILDEBRAND
YOLO AVIATION INC
1400 MADRONE WAY
WOODLAND CA 95695

LARRY GERMESHAUSEN
YOLO SPORTSMEN'S ASSOC
PO BOX 82
WOODLAND CA 95695

JIM INGRAHAM
386 CARDINAL DR
WOODLAND CA 95695

EXPERIMENTAL AIRCRAFT ASSOC
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SACRAMENTO CA 95852-5743

CHERIE RITA CHIEF
W PLAINFIELD FD
24901 COUNTY RD 95
DAVIS CA 95616

COUNTY HANGAR TENANTS

KEN KILPATRICK
432 ABBEY STREET
WINTERS CA 95694

LINDA SPORE SECRETARY
W PLAINFIELD FD
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DAVIS CA 95616

BOB BRIGGS
6700 FREEPORT BLVD #109
SACRAMENTO CA 95822

DON LEWIS/ INTERLAND
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DAVIS CA 95616

ERIC KILGORE
2727 RUBICON AVE
DAVIS CA 95616

MARLENE CARLSON-BOTTER
26479 RD 96
DAVIS CA 95616

BOB LUNSFORD
431 POPLAR AVE
W SACRAMENTO CA 95691

MIKE TOLER
1458 MARSHALL ST
VACAVILLE CA 95686

DR JAMES BENNINGTON
310 BEACH RD
BELVEDERE CA 94920

BRENT REGAN
26180 RD 97
DAVIS CA 95616

OWEN BESS
PO BOX 313
DAVIS CA 95617-0313

TOM MITCHELL
372 DUPLIN WAY
VACAVILLE CA 95688

DOUG KINKLE
1009 SYCAMORE LN
WOODLAND CA 95695

NEAL GOODFRIEND
38667 COUNTY RD 29
WOODLAND CA 95695

COUNTY TIE-DOWN RENTERS

A L WIGGINS
9066 LEATHAN AVE
FAIR OAKS CA 95628

Marti & Nesrin Sarigul-Klijn
965 N LINCOLN ST
DIXON CA 95620

W. AM GOMEZ
2374 BALTIC CT
FAIRFIELD CA 94533

STEVEN SAPPINGTON
771 POLE LINE RD APT 1
DAVIS CA 95616

EATON DRILLING INC
PO BOX 975
WOODLAND CA 95776
AVIATION ADVISORY COMMITTEE
APPOINTED MEMBERS

PETER SARBER
27010 COUNTY RD 95 A
DAVIS CA 95616

BILL MERWIN
47530 N COURTLAND RD
CLARKSBURG CA 95612

ROY KANOFF
44510 S EL MACERO DR
EL MACERO CA 95618

DOUG KINKLE
1009 SYCAMORE LN
WOODLAND CA 95695

JOHN HANCOCK
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INTERLAND
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STE 100
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RAY SPORE
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35383 COUNTY RD 31
DAVIS CA  95616

BOB BUTTON
AIRPORT FIXED BASE
OPERATORS/MAJ TENANTS
8043 SCHROEDER RD
DIXON CA  95620

MICHAEL BOWLING
W PLAINFIELD FLOOD
PROTECTION ASSOC
24920 COUNTY RD 96
DAVIS CA  95616

DAN GARRETT
W PLAINFIELD FLOOD
PROTECTION ASSOC
25361 COUNTY RD 96
DAVIS CA  95616

MARK HAMBLIN
COMMUNITY
DEVELOPMENT
AGENCY
#25A

JIM MICHEL
CALTRANS/
AERONAUTICS DIV
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SACRAMENTO CA  94274

STUART BUCHAN
AIRPORT DEVELOPMENT
ADVISORY COMMITTEE
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DAVIS CA  95616

DEBBIE PARELLA
25450 COUNTY RD 95
DAVIS CA  95616
LEGAL NOTICE

Notice of Public Hearing

The Yolo County Board of Supervisors will be conducting a public hearing on Tuesday January 20, 1998 at 10:15 AM in the Board of Supervisors Chambers in the Erwin Meier Administration Center at 625 Court Street, Woodland, California, regarding the following: ZF #97-052 (Teichert Aggregates): Consideration of a request for rezoning 20 acres from the A-1 (General Agricultural) to the AGl (Agricultural Industrial) Zone, and an amendment to Use Permit No. 2164 to replace and relocate a mobile equipment shop, small tools shop and warehouse, and commercial office space within an existing aggregate processing facility. The project site is located at 40060 County Road 29, at the southeast corner of State Highway 113 and County Road 29, northwest of Davis (APN: 041-090-12 and 16). A Negative Declaration has been prepared for the rezone and use permit amendment and will be considered for certification.

Written comments on any aspect of the application are invited and should be addressed to David Morrison, Resource Management Coordinator, Yolo County Public Works and Planning Department, 292 W. Beamer, Woodland, CA 95695. A copy of the environmental document and other application materials are available for inspection at the Yolo County Public Works and Planning Department.

January 7, 1998

Paula Cooper, Clerk to the Board of Supervisors

By Ana Morales, Depty
To: The Honorable Lynnel Pollock, Chair and Members of the Board of Supervisors

From: Keith Ott, Director of General Services

Date: January 20, 1998

Subject: Public Hearing of the Airport Master Plan Draft Environmental Impact Report/Environmental Assessment

RECOMMENDED ACTION.

Conduct a public hearing to receive comments regarding the environmental review of the draft airport master plan and refer those comments to the Planning Commission for their consideration.

REASON FOR RECOMMENDED ACTION.

To provide your Board public comment prior to the final preparation and presentation of the environmental assessment report and recommendations relative to the draft airport master plan by staff and the consulting firm at second public hearings by the Planning Commission and your Board.

BACKGROUND.

The purpose of the first public hearing primarily is for your Board to receive comments relative to the draft Environmental Assessment (EA) and Environmental Impact Report (EIR) and not to take any specific action other than referring those comments to the Planning Commission for their consideration. The environmental review and draft EIR/EA of the airport master plan have been in process of preparation since October 21, 1996.

A technical advisory committee was formed from the two airport advisory committees and a broad base of community interest groups to provide a continuing community focus during the review. The Planning Department has provided CEQA review and advice during the preparation of the EIR.

Copies of EIR/EA document were made available for community and public agencies review on October 10, 1997. The review period by public agencies has now expired and staff is compiling agency comments received to date.

Two public workshops have been conducted for the benefit of the community and the technical advisory committee: October 24, 1997 (in Woodland) and December 2, 1997 (at Lillard Hall).

The Planning Commission held their first public hearing on December 10, 1997.
Principal areas of comment received to date within the scope of a CEQA review process include:

1. water drainage ... the West Plainfield Flood Protection Association is concerned with area-wide flooding and seeks to enlist the support of the County in area-wide mitigation measures.

2. noise contours ... a question was raised at the Second Public Workshop regarding whether or not road noise, noise from the Yolo Sportsmen Association gun range and other non-aviation noises originating from the airport area were included in the noise contours.

3. air quality ... a question was raised as to how the County would meet stringent standards as development proceeds.

4. socio-economic impact on property values ... a question was raised re: impact of property values as a result of further airport development.

5. Swainson's Hawk ... the validity of the draft EIR/EA statement regarding endangered species was questioned concerning Swainson's Hawk.

6. increased use of ground water due to development ... a question was raised concerning the increased demand on ground water as a result of airport development.

The consultant will present a short briefing of the status of the environmental review prior to the first public hearing and then make recommendations regarding all public comments within the context of environmental review prior to the Planning Commission and the Board of Supervisors' second public hearings.

After your Board closes the public hearing and comments therefrom forwarded to the Planning Commission, the Planning Commission will be asked to conduct a second public hearing on March 4, 1998 to consider EIR/EA adoption and certification recommendations to your Board.

Thereafter, staff will make recommendations to your Board regarding the certification of the EA/EIR, adoption of overriding CEQA language, management policies, adoption of the master plan (at which time the '77 Airport Specific Plan will be rescinded), and sending the master plan, EA/EIR to the FAA.

**Fiscal Impact.**

The EIR/EA project budget is $140,000 funded by a $126,000 FAA grant and $14,000 in matching funds. All funds are included in either the fiscal year 1996-97 or 1997-98 approved budgets.

**Other Agency Involvement.**

The Technical Advisory Committee (appointed by the Board at the commencement of the master plan development), the Aviation Advisory and Airport Development Advisory Committees, the firm of P&D Consultants, the FAA, County Counsel; the Community Development Agency, and General Services.

c: Planning Commission
   Chairman and members of the Aviation Advisory Committee
   Chairman and members of the Airport Development Advisory Committee
   Technical Advisory Committee members
   Director of Community Development
Via Certified Mail

December 22, 1997

Robert Verkade
25131 Carlsbad Ave
Davis, CA 95616

re: County Airport Master Plan EA/EIR Second Public Workshop

Dear Mr. Verkade:

You requested a copy of the transcript of the Second Public Workshop for the Yolo County Airport Master Plan EA/EIR. As I mentioned at the time it was not intended to create a transcript of that workshop but that I would provide you a copy of the audio tape made during the workshop.

This letter forwards that copy to you contained on 1 1/2 sides of two 90 minute magnetic media audio tapes. The sound quality of questions is not always distinct but the answers or comments are usually satisfactory. Even though the audience had been requested to provide their names when they asked questions that was, in fact, rarely done and so the listener to the tape will not necessarily know who asked the question.

Sincerely,

[Signature]

Keith Ott

encl (2 tape cassettes)
To: Members, Airport Development Advisory Committee  
Members, Aviation Advisory Committee  
Members, Airport Master Plan EIR/EA Technical Advisory Committee  
Airport Renters and Tenants  
Interested Community Members

From: Keith Ott, Director of General Services

Date: April 13, 1998

Subject: Public Workshop re: 1998 Airport Specific Plan (DRAFT Airport Master Plan, DRAFT Airport Management Policies, and FINAL DRAFT EIR/EA)

A public workshop will be held as indicated below:

| Time: 5:30 p.m. |
|---------------|----------------|
| Date: Wednesday, April 22, 1998 |
| Location: Lilliard Hall (West Plainfield Fire District at County Road 95) |

Information sheets and staff presentations will be provided at the workshop regarding the 1998 Airport Specific Plan (draft airport master plan and draft EIR/EA revisions and the draft management policies). Attached to this notice is the current schedule of planned public workshop and hearings including the dates and locations that final draft documents will be available for review.

c: P&D Consultants
FAA
Schedule of Planned Public Workshops and Hearings

Yolo County 1998 Airport Specific Plan
(Master Plan draft, Airport Management Policies draft, and Environmental Impact Report/Environmental Assessment draft)

Jan 21 - Apr 21 - revised final master plan, preparation of draft EIR/EA (DFEIR), draft airport management policies

Apr 22nd 5:30 pm - public workshop (preparation of final EA/EIR [FEIR] commences based on comments at workshop and written comments received

*********************
County staff is available throughout this period to respond to questions and provide additional information.

Please contact either Keith Ott at 666-8075 or Larry Rillera at 666-8179.

*********************

Apr 28th - recommended master plan, EIR/EA, and management policies to printer

May 2nd - Daily Democrat prints legal notice starting 31-day FAA required notice required prior to final document review by the Planning Commission

May 2nd - copies of final documents to the County libraries (Davis and Winters), to the Woodland city library, and to Lilliard Hall

May 22nd - final public written comments due to County lead agency (GSA)

May 28th - prepare draft Responses to Comments section of FEIR

Jun 3rd - Planning Commission Second Public Hearing

Jun 16th - Board of Supervisors Second Public Hearing (certification of EA/EIR, adoption of Airport Master Plan and management policies)
Yolo County 1998 Airport Specific Plan
Public Workshop
Lilliard Hall
April 22, 1998

It is suggested that each agenda topic below be initially limited to about 10-15 minutes each in order that all items can be covered. If additional time is needed to continue the discussion of any specific item after all have been addressed, then that time will be available.

Agenda:

✓ Management Policies (esp avigation easements)
✓ Airport Master Plan (FAA format revisions and corrections)
✓ EIR/EA (final draft elements)

1. Noise contours
2. Flood water drainage
3. Traffic
4. Swainson’s Hawk
5. Air Quality
6. Socio-economic impacts

✓ final draft documentation public review/comments & Public Hearings
   ... process & schedule ...

Materials Available for Public Information:

✓ draft Airport Management Policies (w/background information annotations)
✓ synopsis of EA/EIR revisions to be incorporated in the final draft EA/EIR

Presenters/Resource Staff:

Mike McClintock, P&D Consultants (draft master plan & EA/EIR preparation)
Mark Hamblin, County Planning & Public Works Department (CEQA support)
Keith Ott, General Services Agency (lead agency)
Sign In List

Yolo County Airport Master Plan EA/EIR
Public Workshop
Lilliard Hall
April 22, 1998

Karel Hedrick 25280 Carboyd Ave. Davis 756-3485
Linda Hedrick 35750 Yellowstone Pl. Davis 756-9467
Ginny Hedrick 63828 Acadia Ln. Davis, Ca. 95616
Eleanor Word P.O. 316 Davis, Ca 95617 6613193
Don H. Roberts P.O. Box 283-Woodland Ca 95696
Harry Hardman 25070 Carboyd Ave Davis 95616
Ray Kramer 645 Cawdige St. Davis 95616

Ohri Foe

Carolyn Tanaynie 24984 Entry Rd. 95 Davis
Jerry L. Hedrick 25280 Carboyd Ave Davis 756-3485

MRS. Foe

L. Pollock
DATE: April 22, 1998

TO: Mr. Keith Ott, Director, Yolo County General Services

FROM: Mike McClintock

SUBJECT: UPDATE ON QUESTIONS RAISED ON DRAFT EA/EIR FOR YOLO COUNTY AIRPORT MASTER PLAN FOR APRIL 22, 1998 PUBLIC WORKSHOP.

The following has been prepared to provide interested parties with an update on the status of the EA/EIR as a result of the two public workshops, the initial public hearing before the Planning Commission in December, and comments received to date on the Draft EA/EIR:

AIRPORT LAYOUT PLAN

The ALP has been amended to depict the updated runway protection zones (RPZ) for Runways 16 and 34 as a result of the FAA's recent approval of non-precision instrument approaches to these two runways. The Final EA/EIR and Airport Master Plan reports will reflect these changes. A copy of the revised ALP is attached (see Attachment 1).

ISSUES

Several issues have been raised with respect to the information contained in the Draft EA/EIR. These issues and the status of responses in the Final EA/EIR are as follows:

Noise – Shooting Ranges. A question was raised with respect to noise from the shooting ranges at the Yolo Sportsmen's Association. In response to this concern, P&D retained the services of HMMH, a nationally-recognized acoustical consulting firm to evaluate the irregular and relatively unpredictable noise events associated with the firing ranges at the Sportsmen's Association. The HMMH report quantified the contribution of on-airport firing range noise with respect to the CNEL noise contours developed for aircraft operations.
HMMH’s noise analysis was based on information obtained during on-site and telephone discussions with the firing range operator, and on noise data and assessment methods available in the literature. Community Noise Equivalent Level (CNEL) calculations for the firing ranges were based on an average Sound Exposure Level (SEL) per round fired for typical shooting activities, and on rough estimates of the yearly average number of rounds fired during different periods of the day. The calculated levels were adjusted to account for distance, atmospheric effects and shielding, and a penalty was applied to account for heightened annoyance response due to the highly impulsive character of the noise.

The resulting “normalized” CNEL contours for the firing ranges are illustrated in Attachment 2, along with the revised CNEL 65dB aircraft noise contour for the airport. The results indicate that the shooting range’s normalized 65dB CNEL contour falls primarily within the airport boundaries, except to the east where it extends off the property. There are no residences located within the 65dB firing range contour.

With regard to cumulative effects, Attachment 2 shows that the CNEL 65dB firing range and airport noise contours overlap primarily within the airport boundaries. Thus, the cumulative effect of these two noise sources on the community would be minimal. The complete HMMH report will be included in the Final EA/EIR.

Noise — “Crop Dusters”. A question was raised with respect to whether or not aerial applicator (crop duster) operations were considered in the development of airport noise contours. The answer is both yes and no. Yes, a sufficient number of aircraft were included in the existing and forecast operational scenarios, but no specific crop duster aircraft operations were included in the computer noise model (the model’s database does not include such aircraft). To remedy this situation, P&D retained HMMH to investigate crop duster operations and to re-run the FAA’s Integrated Noise Model (INM) to assess the contribution of the crop dusters to the size and/or shape of the contours. HMMH’s noise analysis was based on information obtained during on-site and telephone discussions with the primary crop duster operator at the Airport, Growers Air Service. Updated Community Noise Equivalent Level (CNEL) contours were developed using the information provided to modify the Integrated Noise Model Version 5.1 input files developed by P&D for the Airport Master Plan.

The resulting CNEL 65dB contour for current aircraft operations at the Airport are illustrated in Attachment 3. The results indicate that the 65DB CNEL contour falls primarily within the Airport boundaries, except to the west near the runway ends where it extends across County Road 95 as follows:

- On the north, just to the west of the Runway 16 landing threshold, the 65dB CNEL contour extends approximately 100 feet west of the Airport.
- On the south, just to the west of the Runway 34 landing threshold, the 65dB CNEL contour extends approximately 50 feet west into the community.

As with the previous noise contour map, there are no residences located within the 65dB aircraft noise contour.

The updated 2015 CNEL contour is depicted in Attachment 4. This contour is slightly larger due to the projected increase in aircraft operations at the Airport. There could be a total of three (3)
residences within the 2015 85dB CNEL contour. This represents an increase of two dwelling units over what was set forth in the Draft EA/EIR (however, one of the potential dwelling units may be a free-standing garage or accessory building). The complete HMMH report will be included in the Final EA/EIR.

**Avigation Easements.** An issue was raised concerning whether or not the granting of avigation easements was in fact County policy. Avigation easements are not required by law, and because there would be no significant noise or safety impacts associated with Master Plan implementation, the Final EA/EIR will not require avigation easements as a means of mitigation. However, the County has reviewed its policy concerning avigation easements and is of the belief that they are particularly useful in protecting designated approach and clear zone areas that fall outside the Airport boundary. The proposed County policies with respect to avigation easements are to (1) seek avigation easements only within designated approach and clear zones, and (2) maintain all currently held avigation easements.

**Swainson’s Hawk.** Evidence was provided that there is a nesting site for the Swainson’s Hawk located on Airport property. However, the hawk’s nesting site is not located precisely where the commenter indicated it was. P&D visited the airport and determined the actual location of the on-airport nesting site. The site is in a large stand-alone tree located approximately 500 feet to the east of the extended runway centerline, and is not subject to removal or disturbance for Master Plan purposes. Other nesting sites identified in proximity to the airport will be depicted on the appropriate Final EA/EIR exhibit.

**Drainage and Flood Control.** The West Plainfield Flood Protection Association (WPFPA) has raised objections to the mitigation measures proposed for the development of the area east of Aviation Avenue, with one exception. The exception is the widening and deepening of the existing on-site stormwater detention basin as a means of controlling runoff into Airport Slough during periods of peak flow.

Based on the information presented by the WPFPA, and as a result of further coordination with the Yolo County Flood Control and Water Conservation District, including a report entitled “A Report on Storm Drainage and Flooding in Yolo County” (February 1997), the section of the EA/EIR dealing with flood control and drainage will be updated, and mitigation measures revised accordingly.

The principal mitigation measure currently being considered is:

- Change the proposed dimension of the existing on-site storm water detention basin to accommodate up to 180-acre feet of storm water for a period of up to four days prior to release.

This would change the proposed dimensions of the detention basin from 2,200 x 500 feet x 3.5 feet deep to approximately 2,200 x 600 feet x 6.0 feet deep. The detention basin could also be made narrower and longer, as appropriate. This would accommodate 100% of the anticipated runoff for the Airport site during a 100-year storm event. This should reduce any potential significant adverse impacts from the airport development area to a less-than-significant level. However, at this writing, this has not been verified by the County’s engineering consultant.

---

P&D had recommended other off-airport mitigation measures in the Draft EA/EIR that would be the responsibility of agencies other than the County, including:

- Encourage responsible agencies to maintain storm drainage systems to ensure efficient use during periods of high water by dredging accumulated silt and debris from Chickahominy, Dry and other sloughs in the West Plainfield drainage area.

- Encourage responsible agencies to investigate the source and effects of floodwater entering the Pleasant Prairie irrigation canal to the west of the airport and which enters Airport Slough at Road 96 just north of Acadia Lane.

- Encourage responsible agencies to investigate the feasibility of a bypass to divert stormwater from Chickahominy/Dry Slough into Putah Creek.

However, at the direction of the Board of Supervisors, these measures will not be incorporated into the Final EA/EIR, as they are not within the authority of the County to implement.

**Ground Water Usage.** A question was raised with respect to what effect proposed airport development would have on groundwater resources. The County has provided P&D with information of historical water usage, and in the County’s opinion, any increased usage associated with Master Plan implementation would not be detrimental to groundwater resources.

**Air Quality.** A question was raised with respect to how the proposed project could meet stringent ambient air quality standards if the County is located in a non-attainment area for ozone and PM_{10}. The Yolo-Solano Air Quality Management District has responded to this issue with a finding that the Draft EA/EIR “adequately addresses air quality impact” and that the PM_{10} mitigation measures for dust are adequate. Implementation of the Master Plan would not exceed any of the thresholds of significance for air quality impacts, including ambient air quality standards.

**Impacts on Property Value.** A request was made that the effects of future airport development on property values also be addressed in the “Induced Socioeconomic Impacts” section of the Final EA/EIR.

P&D’s research on this question has yielded the following information:

1. It is generally recognized that the proximity of one form or another of a locally undesirable land use (e.g., a freeway, refinery, airport, power line, etc.) to a residential area will have an influence on the value of homes in the area. The extent and nature of the undesirable use, as well as its proximity to, or distance from, the residences will also have a degree of influence on the property. No one knowingly chooses to buy a home next to such potentially unpleasant neighbors as a freeway or an airport, unless they are enticed by an attractive price for the property.

2. In those cases where proximity to an airport has resulted in a measurable diminution of property value, the airports involved are large, air carrier airports such as Los
Angeles, San Francisco, Seattle-Tacoma, John Wayne (Orange County), or Ontario International Airports.

3. One study of significance, "The Effect of Airport Noise on Housing Values: A Summary Report," prepared for the FAA by Booz-Allen and Hamilton in 1994, compared market prices for homes in similar neighborhoods around LAX that differed only in the level of airport-related noise. The study found that the effect of airport noise on home prices was highest in moderately priced and expensive neighborhoods. For two "moderately priced" neighborhoods north of LAX, the study found "an average of 18.6 percent higher property value in the quiet neighborhood" (i.e., outside the CNEL 65dB Airport Noise Contour). The study further concluded that each additional dB of quiet was worth 1.33 percent to the value of a home. The Booz-Allen study did not specify where the noise-impacted versus the non-noise-impacted homes were located with respect to the airport's noise impact area. But, if one were to take the FAA's noise compatibility standard of DNL (CNEL) 65dB as the demarcation point between compatible and non-compatible for residential uses, then the noise impacted residences would quite likely have been subject to a cumulative noise level in excess of CNEL 70dB! At Yolo County Airport, the projected CNEL 70dB airport noise contour for the year 2015 would be contained entirely on the airport.

4. A similar study conducted in 1996 for the State of Washington for the proposed expansion of SEA-TAC International Airport (including a new runway) concluded that, "A housing unit in the immediate vicinity of the Airport would sell for 10.1 percent more...if it were located elsewhere." The study also concluded: "the value of a house and lot increases by about 3/4% for every quarter of a mile the house is farther away from being directly underneath the flight track of a departing/approaching jet aircraft." [P&D italics/underline]

Even for large jet aircraft, this effect appears to be only marginal, and for the projected aircraft fleet mix at Yolo County Airport in 2015, would likely be a less than significant factor.

5. There are at least two California court cases that deal with this issue, as well. In Baker v. Burbank-Glendale Pasadena Airport Authority it was held that airports, as public utilities, may be considered a "nuisance" and are subject to legal action. However, "Baker" also determined that (1) cumulative noise measures provide a good basis for distinguishing between legitimate and unsupported claims, (2) the "cutoff" line should be drawn at the 65dB CNEL level, (3) there is a statute of limitations for such suits (3-5 years), and (4) a "prescriptive" easement generally exists in areas of continued overflight.

The findings in "Baker" were reinforced in a 1996 U.S. Circuit Court of Appeals (Ninth Circuit) case in Re: Stuart Bartleson v. United States of America. Bartleson bought a large ranch next to Camp Roberts (a National Guard training base) in southern Monterey County in 1989. Bartleson bought the property knowing that

39 Cal. 3d 862 (1985).

Memo to Keith Ott, April 22, 1998
Camp Roberts abutted it, but said that he had no reason to believe it might be subject to accidental shelling from artillery fire at Camp Roberts. He sued the U.S. government for damages (i.e., diminution of property value).

Bartleson's appraiser concluded that the resultant diminution in value from the inadvertent shelling was on the order of $588,000. The government's appraiser concluded that there was no diminution in value as a result of the shelling because the market had already accounted for the property's proximity to the artillery range and the risk of shellfire. The trial court awarded $5,000 damages to Bartleson under the "permanent nuisance" theory for interference with the use of his property, and "$60,000 for diminution in the value of the property. Bartleson appealed the decision on the basis that the damage award amounted to only about $50 per acre. 4

The U.S. Court of Appeals for the Ninth Circuit reviewed the case and affirmed the district court's decision. Of interest is the testimony of the government's expert, a real estate appraiser with experience appraising properties where stigma has been claimed. His conclusion was that there had been no change in value after the shelling of Bartleson's property because the real estate market had already taken the risk of shelling into account.

The findings of the Baker and Bartleson cases are both applicable to the question of whether or not the proposed Airport Master Plan development will have an adverse impact on local property values. The answer appears to be that if there is any diminution of value, the real estate market has already taken this into account, given the proximity of the Airport and adjacent residential areas.

Traffic Safety. The Draft EA/EIR warns (on pages 5-77 and 5-78) that drivers unfamiliar with the local roads should not use County Road 29 just west of County Road 95, and that appropriate signing should encourage drivers to use County Road 31 and County Road 95 to and from the airport. This statement was challenged during the public review process for the Draft EA/EIR.

Here are the facts according to California Highway Patrol data. Over the past five years (1993-1997), the following numbers of accidents have occurred at these locations:

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.R. 31 @ C.R. 95</td>
<td>6</td>
</tr>
<tr>
<td>C.R. 29 @ C.R. 95</td>
<td>13</td>
</tr>
<tr>
<td>C.R. 29 @ Aviation Avenue</td>
<td>0</td>
</tr>
<tr>
<td>C.R. 95 @ Aviation Avenue</td>
<td>0</td>
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</tbody>
</table>

According to the County Planning & Public Works Department, these are relatively small numbers of accidents. Considering the rather minor increase in traffic volume mentioned in the Draft EA/EIR, the effect of the project on accidents at these intersections is considered to be insignificant by the Yolo County Planning & Public Works Department. In any event, the intersection of C.R. 31 @ C.R. 95 appears to be the safer of the two intersections.

4 On the basis of the actual area affected, the amount was actually closer to $200 per acre.
**Congestion.** It is a requirement that environmental documents address traffic congestion, regardless of the appropriateness to the location. The traffic volume counts mentioned in the Draft EA/EIR are still valid. The estimated traffic generated by the project will be about 210 vehicle trips per day by the year 2015. This is a very small amount of traffic, and its cumulative effects when combined with other local traffic would be less than significant, according to the County Planning & Public Works Department. The County has no recorded data on turning movements at the intersections, however, it believes the intersections can handle the anticipated increase in traffic volume with their current configuration. The vehicle volume at the C.R. 31/C.R. 85 intersection does not meet the warrants for a signal. The County does not intend to install a signal light at this location now, or at any time that conditions do not meet warrants for a signal. The Master Plan project will not generate sufficient additional traffic for the signal warrants to be met. For comparative purposes, the Planning & Public Works Department notes that there are currently no standard traffic signals in the unincorporated area of the County.

**Airport Fire Protection.** The West Plainfield Fire Protection District provides basic airport fire protection from its on-airport station. This is a volunteer fire department and the airport station is not always occupied. The District is trained primarily for fighting structural fires, and although located on the airport, is neither trained nor equipped to fight aircraft fires. Although tasked with first response in an aircraft accident, the District’s role in such an accident would be largely limited to rescue, rather than fire suppression.

This is not unusual, as there are no requirements that the agency responsible for responding to an aircraft accident at an airport such as the Yolo County Airport be equipped with specialized aircraft fire fighting equipment (e.g., foam). The same would be true for future conditions at the airport. However, it would seem wise for the County and the District to get together to enhance the District’s aircraft accident response and fire suppression capabilities as the airport develops and higher capacity aircraft begin to use the facility on a regular basis.

As the Airport begins to develop in the future, the County must also ensure that all new development conform to applicable building, fire and life safety codes. This will include upgrades to the Airport’s water distribution system sufficient to support an on-airport fire hydrant system that can be accessed by the District’s pumper trucks.
ATTACHMENT 2

Firing Range and 1998 Aircraft
CNEL Contours
at Yolo County Airport

CNEL Contour
Buildings

Scale in Miles

1 : 28 000

Produced by the Yolo County Planning & Public Works Department - 4/13/98
ATTACHMENT 4

2015 Aircraft CNEL Contour at Yolo County Airport

CNEL Contour

Buildings

Scale in Miles

0 1/4 1/2
1 : 28 000

Produced by the Yolo County Planning & Public Works Department - 4/98
APPENDIX K

COMMENTS AND CORRESPONDENCE RECEIVED ON DRAFT EA/EIR
APPENDIX K:
COMMENTS AND CORRESPONDENCE RECEIVED ON DRAFT EA/EIR

- 12/2/97: LETTER FROM LOIS RICHERSON, WEST PLAINFIELD FLOOD PROTECTION ASSOCIATION
- 12/9/97: FACSIMILE TRANSMITTAL FROM SIDNEY A. ENGLAND, U.C. DAVIS
- 12/11/97: LETTER FROM DEBBIE PARRELLA
- 1/13/98: LETTER WITH PETITIONS SIGNED BY 32 AREA RESIDENTS
- 1/16/98: LETTER WITH PETITIONS SIGNED BY 6 AREA RESIDENTS
- 1/17/98: LETTER FROM ELEANOR WOOD
- 1/20/98: LETTER FROM S.H. BUCHAN
- 1/20/98: LETTER FROM ERIC TAVENIER, P.E.
- 1/22/98: LETTER FROM JERRY AND KAREL HEDRICK
- 1/25/98: NOTE FROM DEBBIE PARRELLA
- 1/26/97: COMMENTS OF MR. NARDUCCI FROM 1/20/98 BOARD OF SUPERVISORS HEARING
West Plainfield Flood Protection Association
24790 Road 96
Davis, CA 95616

Mr. Keith Ott, Director
County of Yolo
General Services Agency
625 Court Street
Woodland, CA 95695

December 2, 1997

Dear Mr. Ott,

Subject: Flooding and drainage improvements proposed in EIR for Airport Master Plan.

As you are aware, the WPFPA represents property owners in the West Plainfield area. We formed our non-profit association in 1983 for the purpose of monitoring and managing flooding because there was (and still is) no entity in the County responsible for flood planning and management.

We strongly object to four of the five components outlined in the flooding and drainage section of the draft EIR for the Airport Master Plan. The proposed plan is based on a study conducted in 1984 and it is outdated. The flooding and drainage situation has changed significantly around the airport in the past 13 years. Airport Slough, the waterway that is proposed to handle the additional airport runoff, has absolutely no capacity for a drop more water. It has severely flooded homes, farms, businesses and roads at least four times in the last three years due to new sources of water flowing into its channel and new impediments blocking its flow.

The one component of the proposed plan we DO support is the on-site detention storage plan (large pond on east side of airport). However, the pond overflow must NOT be allowed to drain into Airport Slough unless measures are taken to decrease other current inflows into Airport Slough.

There has been a long-standing proposal to alleviate flooding in the airport area by diverting water from Chickahominy/Dry Slough into Putah Creek. If this plan were implemented, there probably would be enough capacity in Airport Slough to handle the pond overflow. Currently, increasing amounts of Chickahominy/Dry Slough floodwater are entering Airport Slough because the capacity of Chickahominy/Dry Slough has been drastically reduced by the accumulation of silt and vegetation in its channel.

We suggest that the EIR propose the construction of this diversion to ensure sufficient capacity in Airport Slough to accommodate airport runoff.

We will be happy to meet with you to discuss further our concerns.

Sincerely,

Lois Richerson 756-5054
Lois Richerson, President

cc: Yolo County Board of Supervisors
    Yolo County Flood Control and Water Conservation District
to: Larry Rillera
fax #: 666-8117
re: Swainson's Hawks at Yolo County Airport
date: December 9, 1997
pages: 2, including this cover sheet.

Dear Larry:

Per your request, the following page is a map of the locations of Swainson's Hawk nests within approximately one mile of the Yolo County Airport. All nine of these nests have been active during the 1990s. The map is based on data collected by Jim Estep and me. Please let me know if you have any questions.

Sincerely,

A. Sidney England
Environmental Planner
Swan蛋 nests (1990-97) within one mile of Yolo County Airport (Ertap & England)
Mike —

I jotted down a few notes/reminders after our 10/24 meeting that Keith apparently did not receive. If it does turn up, please disregard it, and this will serve just fine.

1. Please address the property value issue in relation to airport development. The community would welcome any comments you can make regarding documented info.

2. Is it possible to include a recommendation to the Board of Supervisors with the EIR that they address the "Easement Issue" rather than hope well all just go away?!!

3. Can the EIR recommend not widening Co. Rd. 95 — or — if this eventually does become necessary, to widen it to the East (direction of airport) as opposed to the West?!!

Thanks.
January 13, 1998

Mr. Keith Ott
Director, General Services Agency
625 Court St., Room 203
Woodland, CA 95695

Subject: Request that Yolo County Address the Issue of an Avigation Easement Policy in the EA/EIR for the Yolo County Airport Master Plan

Dear Mr. Ott:

For the last several years Yolo County has been studying the need for avigation easements while periodically requiring them of landowners near the Yolo County Airport in exchange for approval of conditional use permits. We had assumed this would end as the Airport Master Plan only identified a need for easements at both runway approaches to insure Runway Protection Zones (pp. 5-6, 5-7, 6-5 and 7-1, Airport Master Plan). However, it appears that the County plans to continue this practice of studying the need for avigation easements until at least the year 2000 (p. 5-19, draft EA/EIR). We believe that the easements are being required as part of an unwritten policy to facilitate development of the airport. We also believe this subjective policy continues to raise serious legal questions and that the presence of avigation easements negatively impacts the value of our property.

In 1992, the Foes purchased the property at 34911 County Road 29 which is adjacent to the Yolo County Airport. Subsequently, it was found that the title had been encumbered with an avigation easement which had not been disclosed to them by either the Seller or the Title Company. The Title Company engaged a licensed real estate appraiser to determine the impact of the easement. This was done by comparing the resale value of similar properties with and without easements adjacent to other northern California airports. The appraiser concluded that the avigation easement was worth ten percent of the property value. The Title Company agreed and offered this amount to the Foes. While specific details of the settlement and study are confidential, this information has been forwarded by the Foes to the County as part of a request to have their property taxes reassessed.

Therefore, it is crucial that the County finally address this easement issue in the EA/EIR by:

1. including a statement abandoning this selective policy due to its questionable legal nature and the serious discord it has caused between the County and members of the community, or

2. develop and include a definitive avigation easement policy which accurately reflects the negative impact this will have on properties adjacent to the airport. The policy must include the County’s justification for easements, the language of the proposed easement, the geographic extent of the area over which easements would be required, and the manner in which they would be obtained. In addition, the policy must include an economic analysis of the impact of these easements on local properties to be conducted by a licensed real estate appraiser.

Finally, it is imperative that the County abstain from attempting to collect further easements until a formal decision regarding an avigation easement policy is made.

Respectfully submitted by Yolo County Airport community residents listed on the following page.
<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
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<tbody>
<tr>
<td>Claude Lee Foe</td>
<td>34911 County Rd 29, Woodland, CA</td>
</tr>
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<td>Octo Q. Foe</td>
<td>34670 Co Rd 29, Woodland, CA</td>
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<td>Paul Bittrell</td>
<td>34505 Co Rd 29, Woodland, CA</td>
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<td>N. Lancaster</td>
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<td>Bert L. Bayley</td>
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<td>Thomas Calin</td>
<td>34835 Rd 29, Woodland CA 95695</td>
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<tr>
<td>Nancy Elsie</td>
<td>36205 Road 29, Woodland CA 95695</td>
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<tr>
<td>Gwendolyn Schindler</td>
<td>24570 Rd 95, Davis, CA 95616</td>
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<tr>
<td>Richard C. T. Shuster</td>
<td>34450 City Rd 29, Woodland 95695</td>
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<tr>
<td>Octavia Cottrell</td>
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<td>Geoffrey Rippinale</td>
<td>25090 Co Rd 95 Davis, CA 95616</td>
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<td>Tony S.</td>
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<td>Theodore J. L.</td>
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<td>Carolyn B. Esterby</td>
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<td>William C. V. Baker</td>
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<td>J. W.</td>
<td>35692 Acadia Ln</td>
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</table>

January 13th letter
Respectfully submitted,

Name

Patrick R. Parrella

Eve Lavine

Michael P. Parrella
25450 C.R. 120 N.
Davis, 95616

Phone #

758 - 5154
758 - 5154
753 - 1287

* Tavenier
25683 Yosemite Ave.
Davis, 95616
<table>
<thead>
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<td>J.W. Defty</td>
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<tr>
<td>Michele Defty</td>
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January 13th letter
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<tr>
<td>Ted J. Riden</td>
<td>24790 Gold Rd 96</td>
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<tr>
<td>Lois Robinson</td>
<td>24790 Road 96, Deats</td>
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</table>

January 13th letter
January 16, 1998

Mr. Keith Ott
Director, General Services Agency
625 Court St., Room 203
Woodland, CA 95695

Subject: Request that Yolo County remove all reference to avigation easements from the EA/EIR report for the Yolo County Airport Master Plan

Dear Mr. Ott:

In the draft of the Environmental Assessment/Environmental Impact report on the Yolo County Airport Master Plan there are references to Easement Dedication, (see S, pg 19). This cites, incorrectly in our view, that there is a policy that requires developers of new land uses within the ALUC area must grant an avigation easement to the airport. Despite several inquires all the community has as evidence of this policy is verbal assertions as to its existence. There has been no written documentation evidencing as to when the policy was promulgated and what the public input to the development of this policy was. Therefore, short of prompt public clarification of this situation, we request that all reference to avigation easements be removed from the EA/EIR report.

We understand that the necessity for avigation easements will figure in the implementation of the new Airport Master Plan. We therefore take this opportunity to remind the County that:

- The community has requested a clear explanation as to why these easements are required. The prior statements that they compile existing regulations into a single document and that acknowledgment of the existence of the airport is needed from the affected residents in the area should not be handled by the use of easements as the instrument.
- Requirements for easements have been handled inconsistently in the past and existing easements are in different and incompatible language.
- Resolution of the mechanism for achieving the airport’s objectives in this area was to have been steered by an ad hoc group to be led by Supervisor Thompson. This did not take place, leaving the community the impression that their position had been accepted.

It is appropriate to request that the alleged policy of requiring avigation easements be rescinded and the athe county’s needs be properly discussed with the community to jointly develop appropriate disclosure or other documentation that might be acceptable.

Respectfully submitted by the Yolo County Airport Community residents listed on the following page:
<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howard v. Louise Westhoven</td>
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<td>Margaret Lanyon</td>
<td>24484 Co Rd 95</td>
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<td>Shelley Hid</td>
<td>24434 Co Rd 95</td>
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January 16th letter
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Lois Richardson</td>
<td>24790 Road 96 Davis</td>
</tr>
</tbody>
</table>

January 16th letter
January 17, 1998

Mr. Keith Ott
Director, General Services Agency
625 Court St., Room 203
Woodland, CA 95695

Subject: Yolo County Airport Avigation Easement Policy

Dear Mr. Ott:

For several years Yolo County has been requiring avigation easements be recorded by landowners near the Yolo County Airport in exchange for certain types of building permits. The request for these easements is applied in an unwritten and totally inconsistent way. It is impossible to determine what circumstances will trigger the request and the 5 or 6 easements that currently exist are worded differently and have varying levels of rigidity.

The new Airport Master Plan identifies the need for easements only at the end of the runway approaches to insure Runway Protection Zones (pp. 5-6, 5-7, 6-5 and 7-1, Airport Master Plan). However, the community has been told that the County is still considering an avigation easement policy. (p. 5-19, draft EA/EIR).

In 1992, the property at 34911 County Road 29 which is adjacent to the Yolo County Airport changed ownership. Subsequently, it was found that the title had been encumbered with avigation easement which had not been disclosed by either the Seller or the Title Company. The Title Company engaged a licensed real estate appraiser to determine the impact of the easement. This was done by comparing the resale value of similar properties with and without easements adjacent to other northern California airports. The appraiser concluded that the avigation easement was worth ten percent of the property value and the Title Company settled the suit based on this amount. While specific details of the settlement and study are confidential, this information has been forwarded to the County as part of a request to reassess the property taxes.

The community believes these subjective practices raise serious legal questions and that the presence of avigation easements negatively impacts the value of our property. Therefore, it is crucial that the County address the easement issue by either:

1. including a statement in the EA/EIR that recommends that this selective policy is discontinued, due to its questionable legal nature and the serious discord it causes between the County and members of the community, or

2. develop and include a definitive avigation easement policy which accurately reflects the negative impact on properties adjacent to the airport. The policy must include the County's justification for easements, the language of the proposed easement, the geographic extent of the area over which easements would be required, and the manner in which they would be obtained. In addition, the policy must include an
economic analysis of the impact of these easements on local properties to be conducted by a licensed real estate appraiser.

It is imperative that the County abstain from attempting to collect further easements until a formal decision regarding an avigation easement policy is made.

Sincerely,

Eleanor Wood
25601 County Road 95
Woodland, CA 95695
Dear Keith Ott,

I regret that yet again I am unable to attend a Public Hearing on the Airport EA/EIR Report despite my interest in the progress of the Airport Master Plan. Others will have further addressed the need to properly mitigate the adverse impact of development on flooding in the area, I should like to confine my comments at this stage to what I hope is a mistaken passing reference to avigation easements.

In the draft of the Environmental Assessment/Environmental Impact Report on the Yolo County Airport Master Plan there are references to easement dedication, Section 5 page 19. This reference incorrectly asserts that there is a Yolo County policy that requires "developers of new land uses within the ALUC area of referral must grant an avigation easement to the airport". Despite several inquiries only verbal assertions have been obtained as to the existence of such a policy. No written documentation exists as to when the policy was promulgated and public input solicited. Therefore we request that all reference to avigation easements be removed from the EA/EIR report.

We take this opportunity to remind you that:

- The community has requested a clear explanation as to why these easements are required. Prior statements that avigation easements compile existing regulations into a single document and acknowledge the existence of the airport by residents of the affected area are insufficient justification. If the need for compilation and acknowledgment exists (disclosure) it should not be effected via easements.

- Avigation easements have been inconsistently obtained in the past. Existing easements are variable and inequitable.

- Resolution of the mechanism for achieving the County Airport's objectives in this matter was to have been formulated by an ad hoc group of citizens under the leadership of the previous Supervisor Helen Thompson. Since Supervisor Thompson and the
County have not pursued resolution of this matter, the community has reason to believe its position has been accepted, namely that avigation easements will not be part of airport development.

It is, therefore, appropriate to request that the alleged policy of requiring Avigation Easements be removed from the EA/EIR. If there is a County need regarding airport development and easements it should be pursued in consultation with the residents within the sphere of influence of the Yolo County Airport.

Sincerely

S.H. Buchan
To: Board of Supervisors, Yolo County California

From: Eric Tavenier P.E. C35544

Date: Jan 20th 1996

Upon review of the proposed Environmental Impact Report for the New Airport Master plan it is apparent that the EIR is insufficient in at least two areas, namely Noise and Traffic.

Noise:

The noise analysis prepared for the county does NOT include the noise impacts created by the Yolo Sportsmen gun-range. The gun-range is on the airport, and as such MUST be included in the noise analysis.

As you may know, when conducting a noise analysis there is an additional series of impact factors which are applied to night-time noise events. These factors are used when calculating the CNEL (Community Noise Equivalent Level). To ignore the gun-club noise on the airport property when conducting a noise analysis for the airport, and just providing for aircraft generated noise, fatally flaws the analysis and hence it is NOT valid.

The noise analysis portion of the environmental report is particularly important, considering that the Board recently passed an ordinance permitting night shooting at this gun range, increasing noise levels in the evening.

Earlier litigation brought by our community which has brought us to this point of creating a new airport master plan resulted in a settlement agreement which specifically called for the County to address these noise generating activities (gun club and aviation) TOGETHER. This has not been done.

Traffic

The report does not adequately address non-aircraft traffic on or near the airport.

The intersection of County roads 95 and 29 is the most dangerous in the county. This is born out of records kept by the California Highway Patrol, and entered in their "TASAS" database, yet there is no mention of this in the EIR, and the report goes on to recommend this intersection be used as the main vehicle approach to the airport.

The 1977 EIR did recognize the danger of the 95 and 31 intersection and called for the main vehicle approach be through the road 29 entrance to the airport, and that improvements be made to road 29 to accommodate its use as a main.
In conclusion, I am concerned and I regard the EIR as fatally flawed. The Consultants' EIR engineering assertions concerning traffic and noise led this Registered Professional Engineer (me) to investigate the listed authors and contributors' status with the Board of Registration for Professional Engineers. As you may know, to practice Engineering in the State of California, or to call yourself an Engineer, requires an Engineering License.

Upon checking with the Board of Registration, I discovered NONE of the stated authors/contributors for the Consultant are registered in this State.

As the Consultant has made numerous engineering assertions regarding Noise, Traffic and Hydrology, which are all covered by the Business and Professions code regulating the practice of Engineering in the State of California, the EIR is professionally unsupported and fatally flawed.

I respectfully ask the board to recognize the obvious shortcoming of the Consultant's EIR and reject it.

This Board, and our community, deserve a properly considered EIR document, with the engineering analysis to support it... and nothing less.

Respectfully submitted,

signature

Eric Tavenier, P.E.
Route 2 Box 22
Davis, California  95616

email: professional@engineer.net
Mr. Keith Ott  
Director, General Services Agency  
625 Court Street, Room 203  
Woodland, CA 95695  

Dear Mr. Ott:

In the draft of the Environmental Assessment/Environmental Impact Report (EA/EIR) on the Yolo County Airport Master Plan there is a reference to easement dedication, Section 5, page 19. This reference incorrectly asserts that there is a Yolo County Policy requiring that "developers of new land uses within the ALUC area of referral must grant an avigation easement to the airport." Despite several inquiries, only verbal assertions were obtained as to the existence of such a policy. No written documentation exists as to when the policy was promulgated and public input solicited. Therefore, we request that all reference to avigation easements be removed from the EA/EIR.

We take this opportunity to remind you that:

• The community has requested a clear explanation as to why avigation easements are required. Prior statements that avigation easements compile existing regulations into a single document and acknowledge the existence of the airport by residents of the affected area are insufficient justification. If the need for compilation and acknowledgment exists (disclosure), it should not be effected via easements.
• Requirements for avigation easements have been inconsistently obtained in the past. Existing easements are variable and inequitable.
• Resolution of the mechanism for achieving the County Airport's objectives in this matter was to have been formulated by an ad hoc group of citizens under the leadership of the previous Supervisor Helen Thompson. Since Supervisor Thompson and the County have not pursued resolution of this matter, the community has reason to believe its position has been accepted, namely that avigation easements will not be a part of airport development.

It is, therefore, appropriate to request that the alleged policy of requiring Avigation Easements be removed from the EA/EIR. If there is a County need regarding airport development and easements, it should be pursued in consultation with residents within the sphere of influence of the Yolo County Airport.

Sincerely yours,

Jerry L. Hedrick

Karel J. Hedrick
Dear Keith,

Enclosed are several items reflecting community input with regards to the Aviation Easement issue as it pertains to the EIR / Yolo Co. Airport.

Please see that this gets "shuffled" in the appropriate direction in time for consideration by the Co. Bd. of Supervisors.

Feel free to call me if you have any questions.

Thanks — talk to you soon —

Debbie Parrella
25450 Rd 95
Davis, Ca. 95616
756 - 5154
January 26, 1998

Michael McClintock
P&D Consultants

Oakland, CA

re: Comments of Mr. Narducci at the First Public Hearing of the Board of Supervisors

Dear Mr. McClintock:

The purpose of this letter is to document comments of Mr. Narducci, a resident nearby the County Airport. These comments were initially raised by him before the Board in an abbreviated manner and though not in writing I believe it important to understand and address them if appropriate. I interviewed Mr. Narducci after the Board’s hearing to ensure that I understood the issue he raised and determine if they should be included in the written record of EIR/EA comments.

In summary, his comments addressed the following concerns:

1. area-wide flooding
2. escape routes from the airport when access is flooded
3. security at the airport
4. what changes in airport management are planned and when
5. what level of fire protection is needed at the airport as development occurs

I believe we need to provide Mr. Narducci specific answers to his concerns to the extent that is possible or appropriate or explain, to the best of our ability, why specific answers aren’t possible or within the purview of this work effort.

Area-wide flooding. Mr. Narducci seems to understand that his question is not focused on flooding contributions originating on the airport but is focused on flooding originating throughout the area and flowing across the Rolling Acres development. His questions after the hearing were asking what agency is responsible for addressing this situation. Since airport flooding contributions are planned for full mitigation at the 100-year flood level, it would appear that the EIR/EA can offer no further promise of relief. We do need to ensure that the water run-off calculations have been certified by a qualified hydrologist. I look to you to provide such certification.

Escape routes from the airport when access is flooded. Mr. Narducci’s comment and question was to the effect that if the roads to the airport are closed due to flooding, what provisions exist or should exist (policy vs. mitigation) to provide for emergency services in the event of fire or aircraft accident. Several possibilities exist:

a. airport closure
b. use of LifeLine air ambulance
c. response by West Plainfield Fire District
d. assistance from Travis AFB
e. other
Some of the above may not be feasible nor necessary in all circumstances. Some aspects are policy oriented while others fall within the purview of environmental review of the Project. Questions such as “are sufficient volunteers available locally if the roads are closed?” will play in your analysis. I look to you to explore these and perhaps other possibilities for the final response to the question.

What security exists and should exist at the airport? I believe this question arises based on perceived incidents of trespass and vandalism. I do not have any record of such incidents, especially at the airport. The Sheriff’s Office is responsible for public protection in the area and I am going to ask them to conduct a records search of area incidents over the past three years. I believe the basic question is will further development at the airport bring additional security threats to the area? I will provide you the Sheriff’s response.

What changes in airport management are planned and when? While management changes are the purview of the Board of Supervisors, it seems reasonable that an EIR/EA provide informal opinions regarding professional airport management as it relates to important issues such as airport safety, leasehold negotiations and management, improvements planning, etc. especially as a function of airport development within the context of the Project. I make the comment re: “informal opinion” since I recognize that this area is fairly subjective and necessary management can be obtained by a variety of means.

What level of fire protection is needed at the airport now and as development occurs? This seems to be a reasonable and objective area of inquiry. A number of factors exist which place demands on local fire district and airport tenants’ equipment and training and airport infrastructure. Some of these factors include:

a. current demands on equipment and training focus on safety of life and rescue
b. aircraft firefighting in the open does not exist in significant degree
c. structures storing aircraft must comply with the Fire Code
d. Airport fire safety precautions and readiness is enforced by the Fire District

Infrastructure availabilities, for airport firefighting as well as assistance to nearby residents via Fire District pumper trucks, is characterized by a pressurized water main system connecting all tenants to the 165,000 gal storage tank.

How should the above status change as new tenants, fuel farms, etc are developed within the Project? I look to you to address this item.

Sincerely,

Keith Ott

c: Mr. Narducci
Hon. Lynn Pollock
Technical Advisory Committee members
Airport Advisory and Airport Development Advisory Committee members
EA/EIR file
APPENDIX L

RESPONSES TO COMMENTS AND CORRESPONDENCE RECEIVED
APPENDIX L:
RESPONSES TO COMMENTS AND CORRESPONDENCE RECEIVED

- Response to 12/2/97 Letter from Lois Richerson, West Plainfield Flood Protection Association
- Response to 12/9/97 Facsimile Transmittal from Sidney A. England, U.C. Davis
- Response to 12/11/97 Letter from Debbie Parrella
- Response to 1/13/98 Letter with Petitions Signed by 32 Area Residents
- Response to 1/16/98 Letter with Petitions Signed by 6 Area Residents
- Response to 1/17/98 Letter from Eleanor Wood
- Response to 1/20/98 Letter from S.H. Buchan
- Response to 1/20/98 Letter from Eric Tavenier, P.E.
- Response to 1/22/98 Letter from Jerry and Karel Hedrick
- Response to 1/25/98 Note from Debbie Parrella
- Response to 1/26/97 Comments of Mr. Narducci from 1/20/98 Board of Supervisors Hearing
RESPONSE TO ISSUES RAISED IN 12/2/97 LETTER FROM LOIS RICHERSON, WEST PLAINFIELD FLOOD PROTECTION ASSOCIATION:

The West Plainfield Flood Protection Association (WPFPA) has raised objections to the mitigation measures proposed for the development of the area east of Aviation Avenue, with one exception. The exception is the widening and deepening of the existing on-site stormwater detention basin as a means of controlling runoff into Airport Slough during periods of peak flow.

Based on the information presented by the WPFPA, and as a result of further coordination with the Yolo County Flood Control and Water Conservation District, including a report entitled "A Report on Storm Drainage and Flooding in Yolo County" (February 1997), the section of the EA/EIR dealing with flood control and drainage has been updated, and mitigation measures revised accordingly (see also Appendix P, Report by Cunningham Engineers).

This should reduce any potential significant adverse impacts from the airport development area to a less-than-significant level.

As per the Association’s suggestions, P&D had initially recommended other off-airport mitigation measures in the Draft EA/EIR that would be the responsibility of agencies other than the County, including:

- Encourage responsible agencies to maintain storm drainage systems to ensure efficient use during periods of high water by dredging accumulated silt and debris from Chickahominy, Dry and other sloughs in the West Plainfield drainage area.

- Encourage responsible agencies to investigate the source and effects of floodwater entering the Pleasant Prairie irrigation canal to the west of the airport and which enters Airport Slough at Road 96 just north of Acadia Lane.

- Encourage responsible agencies to investigate the feasibility of a bypass to divert stormwater from Chickahominy/Dry Slough into Putah Creek.

However, at the direction of the Board of Supervisors, these measures were not incorporated into the Final EA/EIR, as they were not within the authority of the County to implement.

RESPONSE TO 12/9/97 FACSIMILE TRANSMITTAL RE: SWAINSON’S HAWKS AT YOLO COUNTY AIRPORT FROM A. SIDNEY ENGLAND, U.C. DAVIS:

Evidence was provided by Mr. England that there is a nesting site for the Swainson’s Hawk located on Airport property. However, the hawk’s nesting site is not located precisely where the commentator indicated it was. P&D visited the airport and determined the actual location of the on-airport nesting site. The site is in a large stand-alone tree located approximately 500 feet to the east of the extended runway centerline, and is not subject to removal or disturbance for
Master Plan purposes. Other nesting sites identified by Mr. England in proximity to the airport are depicted in the Final EA/EIR.

RESPONSE TO 12/11/97 LETTER FROM MS. DEBBIE PARRELLA:

Ms. Parrella requested that the effects of future airport development on property values also be addressed in the Final EA/EIR.

P&D's research on this question has yielded the following information.

1. It is generally recognized that the proximity of one form or another of a locally undesirable land use (e.g., a freeway, refinery, airport, power line, etc.) to a residential area will have an influence on the value of homes in the area. The extent and nature of the undesirable use, as well as its proximity to, or distance from, the residences will also have a degree of influence on the property. No one knowingly chooses to buy a home next to such potentially unpleasant neighbors as a freeway or an airport, unless they are enticed by an attractive price for the property.

2. In those cases where proximity to an airport has resulted in a measurable diminution of property value, the airports involved are large, air carrier airports such as Los Angeles, San Francisco, Seattle-Tacoma, John Wayne (Orange County), or Ontario International Airports.

3. One study of significance, "The Effect of Airport Noise on Housing Values: A Summary Report," prepared for the FAA by Booz-Allen and Hamilton in 1994, compared market prices for homes in similar neighborhoods around LAX that differed only in the level of airport-related noise. The study found that the effect of airport noise on home prices was highest in moderately priced and expensive neighborhoods. For two "moderately priced" neighborhoods north of LAX, the study found "an average of 18.6 percent higher property value in the quiet neighborhood" (i.e., outside the CNEL 65dB Airport Noise Contour). The study further concluded that each additional dB of quiet was worth 1.33 percent to the value of a home. The Booz-Allen study did not specify where the noise-impacted versus the non-noise-impacted homes were located with respect to the airport's noise impact area. But, if one were to take the FAA's noise compatibility standard of DNL (CNEL) 65dB as the demarcation point between compatible and non-compatible for residential uses, then the noise impacted residences would quite likely have been subject to a cumulative noise level in excess of CNEL 70dB! At Yolo County Airport the projected CNEL 70dB airport noise contour for the year 2015 would be contained entirely on the airport.

4. A similar study conducted in 1996 for the State of Washington for the proposed expansion of SEA-TAC International Airport (including a new runway) concluded that, "A housing unit in the immediate vicinity of the Airport would sell for 10.1
percent more...if it were located elsewhere." The study also concluded: "the value of a house and lot increases by about 3/4% for every quarter of a mile the house is farther away from being directly underneath the flight track of a departing/approaching jet aircraft." [P&D italics/underline]

Even for large jet aircraft, this effect appears to be only marginal, and for the projected aircraft fleet mix at Yolo County Airport in 2015, would likely be a less than significant factor.

5. There are at least two California court cases that deal with this issue, as well. In Baker v. Burbank-Glendale Pasadena Airport Authority it was held that airports, as public utilities, may be considered a "nuisance" and are subject to legal action. However, "Baker" also determined that (1) cumulative noise measures provide a good basis for distinguishing between legitimate and unsupported claims, (2) the "cutoff" line should be drawn at the 65dB CNEL level, (3) there is a statute of limitations for such suits (3-5 years), and (4) a "prescriptive" easement generally exists in areas of continued overflight.

The findings in "Baker" were reinforced in a 1996 U.S. Circuit Court of Appeals (Ninth Circuit) case in Re: Stuart Bartleson v. United States of America. Bartleson bought a large ranch next to Camp Roberts (a National Guard training base) in southern Monterey County in 1989. Bartleson bought the property knowing that Camp Roberts abutted it, but said that he had no reason to believe it might be subject to accidental shelling from artillery fire at Camp Roberts. He sued the U.S. government for damages (i.e., diminution of property value).

Bartleson’s appraiser concluded that the resultant diminution in value from the inadvertent shelling was on the order of $588,000. The government’s appraiser concluded that there was no diminution in value as a result of the shelling because the market had already accounted for the property’s proximity to the artillery range and the risk of shellfire. The trial court awarded $5,000 damages to Bartleson under the "permanent nuisance" theory for interference with the use of his property, and $60,000 for diminution in the value of the property. Bartleson appealed the decision on the basis that the damage award amounted to only about $50 per acre.³

The U.S. Court of Appeals for the Ninth Circuit reviewed the case and affirmed the district court’s decision. Of interest is the testimony of the government’s expert, a real estate appraiser with experience appraising properties where stigma has been claimed. His conclusion was that there had been no change in value after the shelling of Bartleson’s property because the real estate market had already taken the risk of shelling into account.

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3. ³ On the basis of the actual area affected, the amount was actually closer to $200 per acre.
The findings of the Baker and Bartleson cases are both applicable to the question of whether or not the proposed Airport Master Plan development will have an adverse impact on local property values. The answer appears to be that if there is any diminution of value, the real estate market has already taken this into account, given the proximity of the Airport and adjacent residential areas.

Ms. Parrella makes reference to an issue that was raised concerning whether or not the granting of avigation easements was in fact County policy. Avigation easements are not required by law, and because there would be no significant noise or safety impacts associated with Master Plan implementation, the Final EA/EIR will not require avigation easements as a means of mitigation. However, the County has reviewed its policy concerning avigation easements and is of the belief that they are particularly useful in protecting designated approach and clear zone areas that fall outside the Airport boundary. The proposed County policies with respect to avigation easements are to (1) seek avigation easements only within designated approach and clear zones, and (2) maintain all currently held avigation easements.

Ms. Parrella also requests that the Final EA/EIR “recommend in writing” that the County not widen County Road 95—or if it is to be widened, that it be so widened only on the east (Airport) side. The Final EA/EIR does not comment on the widening of C.R. 95 adjacent to the Airport (the project would not require it), and Yolo County has no short- or long-term plans for the widening of C.R. 95 in this area.

**RESPONSE TO 1/13/98 LETTER AND PETITIONS REQUESTING THAT YOLO COUNTY “ADDRESS THE ISSUE OF AVIGATION EASEMENT POLICY IN THE EA/EIR...”**

Please see response to 12/11/97 letter from Debbie Parrella, above.

**RESPONSE TO 1/16/98 LETTER AND PETITIONS REQUESTING REMOVAL OF “ALL REFERENCES TO AVIGATION EASEMENT...”**

Please see response to 12/11/97 letter from Debbie Parrella, above.

**RESPONSE TO 1/17/98 LETTER FROM ELEANOR WOOD RE: YOLO COUNTY AIRPORT AVIGATION EASEMENT POLICY:**

Please see response to 12/11/97 letter from Debbie Parrella, above.

**RESPONSE TO 1/20/98 LETTER FROM S.H. BUCHAN:**

Please see response to 12/11/97 letter from Debbie Parrella, above.
RESPONSE TO 1/20/98 LETTER FROM ERIC TAVENIER, P.E:

A question was raised by Mr. Tavenier with respect to noise from the shooting ranges at the Yolo Sportsmen's Association. In response to this concern, P&D retained the services of HMMH, a nationally-recognized acoustical consulting firm to evaluate the irregular and relatively unpredictable noise events associated with the firing ranges at the Sportsmen's Association. The HMMH report quantified the contribution of on-airport firing range noise with respect to the CNEL noise contours developed for aircraft operations.

HMMH's noise analysis was based on information obtained during on-site and telephone discussions with the firing range operator, and on noise data and assessment methods available in the literature. Community Noise Equivalent Level (CNEL) calculations for the firing ranges were based on an average Sound Exposure Level (SEL) per round fired for typical shooting activities, and on rough estimates of the yearly average number of rounds fired during different periods of the day. The calculated levels were adjusted to account for distance, atmospheric effects and shielding, and a penalty was applied to account for heightened annoyance response due to the highly impulsive character of the noise.

The resulting "normalized" CNEL contours for the firing ranges are illustrated in Section 3.1.2 of this Final EA/EIR along with the revised CNEL 65dB aircraft noise contours for the airport. The results indicate that the shooting range's normalized 65dB CNEL contour falls primarily within the airport boundaries, except to the east where it extends off the property. There are no residences located within the 65dB firing range contour.

With regard to cumulative effects, the HMMH report demonstrated that the CNEL 65dB firing range and airport noise contours overlap primarily within the airport boundaries. Thus, the cumulative effect of these two noise sources on the community would be minimal. The complete HMMH report is attached as Appendix O.

The Draft EA/EIR warns (on pages 5-77 and 5-78) that drivers unfamiliar with the local roads should not use County Road 29 just west of County Road 98, and that appropriate signing should encourage drivers to use County Road 31 and County Road 95 to and from the airport. Mr. Tavenier challenged this statement during the public review process for the Draft EA/EIR.

Here are the facts according to California Highway Patrol data. Over the past five years (1993-1997), the following numbers of accidents have occurred at these locations:

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.R. 31 @ C.R. 95</td>
<td>6</td>
</tr>
<tr>
<td>C.R. 29 @ C.R. 95</td>
<td>13</td>
</tr>
<tr>
<td>C.R. 29 @ Aviation Avenue</td>
<td>0</td>
</tr>
<tr>
<td>C.R. 95 @ Aviation Avenue</td>
<td>0</td>
</tr>
</tbody>
</table>

According to the County Planning & Public Works Department, these are relatively small numbers of accidents. Considering the rather minor increase in traffic volume mentioned in the Draft EA/EIR, the effect of the project on accidents at these intersections is considered to be
insignificant by the Yolo County Planning & Public Works Department. In any event, the intersection of C.R. 31 @ C.R. 95 appears to be the safer of the two intersections, and this Final EA/EIR recommends this as the main point of access and egress for the Airport.

It is also a requirement that environmental documents address traffic congestion, regardless of the appropriateness to the location. According to the Yolo County Planning and Public Works Department the traffic volume counts mentioned in the Draft EA/EIR are still valid. The estimated traffic generated by the project will be about 210 vehicle trips per day by the year 2015. This is a very small amount of traffic, and its cumulative effects when combined with other local traffic would be less than significant, according to the County Planning & Public Works Department. The County has no recorded data on turning movements at the intersections, however, it believes the intersections can handle the anticipated increase in traffic volume with their current configuration. The vehicle volume at the C.R. 31/C.R. 95 intersection does not meet the warrants for a signal. The County does not intend to install a signal light at this location now, or at any time that conditions do not meet warrants for a signal. The Master Plan project will not generate sufficient additional traffic for the signal warrants to be met. For comparative purposes, the Planning & Public Works Department notes that there are currently no standard traffic signals in the unincorporated area of the County.

Finally, Mr. Tavenier makes assertions concerning the adequacy of the Draft EA/EIR on the basis of his knowledge of P&D Consultants, Inc. and the Business and Professions Code of the State of California. First of all, Mr. Tavenier errs in his assertion that the preparers of the Draft EA/EIR misrepresented themselves as engineers. P&D Consultants, Inc. is a wholly-owned subsidiary of Consoer Townsend Envirodyne (CTE) Engineers, a nationally-recognized professional engineering firm. Regardless, CEQA recognizes that certain professional services can be provided only by individuals who have been registered by a registration board established under California law, and such statutory restrictions apply to a number of professions, including engineering. However, CEQA also notes that, "an EIR is not a technical document that can be prepared only by a registered professional." An EIR is a public disclosure document that explains the effects of a proposed project on the environment. As a result of the information in the EIR, the Lead Agency should establish appropriate engineering design or construction standards at such time as a project is authorized to proceed.

RESPONSE TO LETTER OF 1/21/98 FROM JERRY AND KAREL HEDRICK:

Please see response to 12/11/98 letter from Debbie Parrella.

RESPONSE TO 1/25/98 NOTE FROM DEBBIE PARRELLA:

No response required. This note accompanied the above-noted letters and petitions of 1/13/98 and 1/16/98.
RESPONSE TO COMMENTS OF MR. NARUCCI AT FIRST PUBLIC HEARING OF BOARD OF SUPERVISORS:

The issues raised by Mr. Narducci before the Board of Supervisors with regard to the Draft EA/EIR are listed as follows:

1. area-wide flooding
2. escape routes from the Airport when access is flooded
3. security at the Airport
4. what changes in Airport management are planned and when
5. what level of fire protection is needed at the Airport as development occurs

1. Area-Wide Flooding. The issue of the Airport's contribution to local flooding now and in the future is currently being addressed by a qualified consulting engineer/hydrologist at the request of the County (see Appendix P). Beyond this, Mr. Narducci's concerns about "area-wide" flooding are outside the scope of the EA/EIR.

2. Airport Escape Routes. Mr. Narducci's concern appears to be directed at access to or from the airport during flood conditions, especially in an emergency such as a fire or aircraft accident. In the event of a fire or aircraft accident, the West Plainfield Fire Protection District would provide first response capabilities from its on-airport fire station. During even extreme flood conditions, the Fire District's response should not be seriously impeded for any on-airport incidents, unless the station was not occupied. (Under the flood conditions described, the District generally tries to have the station manned 24 hours a day because of its own problems in getting personnel to the station in an emergency.) However, response time could be seriously delayed and access severely impeded if such an incident were to occur off the airport site during a flood. Under such flood conditions, it would not matter what type of incident took place (e.g., off-airport aircraft accident, structure fire, etc.) because the emergency response would be delayed regardless. If access to the incident location were not possible from the airport fire station, the normal procedure would be to seek assistance from other agencies or jurisdictions.

3. Airport Security. According to the Yolo County Sheriff's office, security at the Airport has not been a major issue. Although an attempt at breaking and entering several Airport buildings was recently reported, this is the first such incident in a long time.

4. Airport Management Changes. The EA/EIR makes no comment on airport management personnel issues, as this is a matter for the Board of Supervisors to decide as a matter of policy. As long as the airport can be operated in accordance with applicable local, state and federal policies, procedures, and other statutory requirements, the EA/EIR need not address this issue, as it is not an environmental one.

5. Airport Fire Protection. The West Plainfield Fire Protection District provides basic airport fire protection from its on-airport station. This is a volunteer fire department and the airport station is not always occupied. The District is trained primarily for fighting structural fires, and although located on the airport, is neither trained nor equipped to fight aircraft fires.
Although tasked with first response in an aircraft accident, the District's role in such an accident would be largely limited to rescue, rather than fire suppression.

This is not unusual, as there are no requirements that the agency responsible for responding to an aircraft accident at an airport such as the Yolo County Airport be equipped with specialized aircraft fire fighting equipment (e.g., foam). The same would be true for future conditions at the airport. However, it would seem wise for the County and the District to get together to enhance the District's aircraft accident response and fire suppression capabilities as the airport develops and higher capacity aircraft begin to use the facility on a regular basis. The development of an Emergency Response Plan for the Airport would seem to make sense in this regard. Appendix Q outlines such a Plan.

As the Airport begins to develop in the future, the County must also ensure that all new development conform to applicable building, fire and life safety codes. This will include upgrades to the Airport's water distribution system sufficient to support an on-airport fire hydrant system that can be accessed by the District's pumper trucks.
APPENDIX M

OTHER DOCUMENTATION
APPENDIX M:
OTHER DOCUMENTATION

- 10/13/97: LETTER TO FAA-ADO RE: DRAFT EA/EIR AND NOTICE OF COMPLETION
- 10/13/97: LETTER TO FAA-ADO RE: LAND USE ASSURANCES FOR YOLO COUNTY AIRPORT
- 10/13/97: LETTER TO USFWS RE: EA COORDINATION
- 10/13/97: LETTER TO YOLO COUNTY RESOURCE AND CONSERVATION DISTRICT (NATURAL RESOURCES CONSERVATION SERVICE)
- 10/13/97: LETTER TO U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT, RE: EA COORDINATION
- 10/13/97: LETTER TO U.S. ENVIRONMENTAL PROTECTION AGENCY RE: EA COORDINATION
- 10/13/97: LETTER TO FEDERAL EMERGENCY MANAGEMENT AGENCY RE: EA COORDINATION
- 10/29/97: LETTER FROM CALTRANS, DISTRICT 3, RE: PROJECT IMPACTS
- 1/2/98: LETTER TO NORTHWEST INFORMATION CENTER, SONOMA STATE UNIVERSITY RE: RECORDS SEARCH
- 1/5/98: LETTER FROM YOLO-SOLANO AQMD RE: DRAFT EA/EIR
- 1/6/98: LETTER TO CALTRANS, DISTRICT 3 RE: FOLLOW-UP TO CALTRANS 10/29/97 LETTER
- 1/7/98: LETTER FROM NATURAL RESOURCES CONSERVATION SERVICE RE: DOCUMENTATION
- 1/12/98: LETTER FROM U.S. ARMY CORPS OF ENGINEERS RE: COORDINATION RESPONSE
- 1/12/98: LETTER FROM NATURAL RESOURCES CONSERVATION SERVICE RE: HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION
- 1/21/98: LETTER FROM FEDERAL EMERGENCY MANAGEMENT AGENCY RE: NO COMMENTS AT THIS TIME
• 1/23/98: LETTER FROM NORTHWEST INFORMATION CENTER RE: CULTURAL RESOURCE RECORDS SEARCH

• 3/4/98: MEMORANDUM FROM YOLO COUNTY DEPARTMENT OF PLANNING AND PUBLIC WORKS RE: TRAFFIC SAFETY, CONGESTION AND DRAINAGE

• 3/5/98: MEMORANDUM FROM YOLO COUNTY DEPARTMENT OF PLANNING AND PUBLIC WORKS RE: TRAFFIC QUESTIONS

• 4/8/98: LETTER FROM NATURAL RESOURCES CONSERVATION SERVICE RE: REVISED WETLAND DETERMINATION

• 4/20/98: LETTER FROM CALIFORNIA HIGHWAY PATROL RE: ACCIDENT DATA
October 13, 1997

John L. Pfeifer
Federal Aviation Administration San Francisco Airports District Office
831 Mitten Road
Burlingame, CA  94010-1303

re: Yolo County Airport Master Plan EA/EIR

Dear Mr. Pfeifer:

Enclosed please find copies of the draft Yolo County Airport Master Plan Environmental Assessment and Environmental Impact Report as well as an executed copy of the Notice of Completion. I have also enclosed the planned schedule of events for the remaining phase of work.

Thank you and your staff for your continuing support of local general aviation matters and your assistance to this County government in particular.

Sincerely,

Keith Ott

P&D Consultants
Yolo County Community Development Agency (John Bencomo and Mark Hamblin)
October 13, 1997

John Pfeifer, Manager
Airports District Office
Federal Aviation Administration
831 Mitten Road, Room 210
Burlingame, CA 94010-1303

Re: LAND USE ASSURANCE - YOLO COUNTY AIRPORT

Dear Mr. Pfeifer,

The Yolo County Airport is located in the unincorporated area of Yolo County, California. The County of Yolo has the authority to regulate or control land use and zoning within unincorporated areas of the County. Heights of structures and other objects, and the uses of land are controlled by County land use and zoning regulations as set forth in the Yolo County Code. These regulations are based on, and consistent with, Federal Aviation Regulations, Part 77.

The Sacramento Area Council of Governments (SACOG) serves as the Airport Land Use Commission (ALUC), advising County decision makers on land use compatibility issues in accordance with the Yolo County Airport Comprehensive Land Use Plan. The Yolo County Community Development Agency is the land use planning agency for the County, and works in conjunction with the Airport Land Use Commission to encourage compatible land uses and development in the vicinity of the Airport.

Please contact me if you have any questions or require any additional information.

Very truly yours,

Keith Ott

cc: Mike McClintock (P&D)
October 13, 1997

Michael Chaboul
U.S. Fish and Wildlife Service
3310 El Camino Ave., Suite 130
Sacramento, CA 95821

Re: Yolo County Airport Master Plan Environmental Assessment (EA) Coordination

Dear Mr. Chaboul:

The County of Yolo has filed a “Notice of Completion” with the State Clearinghouse for a combined CEQA/NEPA environmental review document entitled “Draft Environmental Assessment / Environmental Impact Report: Yolo County Airport Master Plan.” The attached copy of the draft EA/EIR is being submitted to FWS’s local office for review and comment. The draft EA/EIR evaluates the proposed future development of the airport, including proposed new aviation and commercial development projects.

In order to comply with the requirements of the County of Yolo pursuant to the California Environmental Quality Act of 1970 and the requirements of the Federal Aviation Administration pursuant to the National Environmental Policy Act of 1969, we request your comments concerning the possibility of the proposed airport development actions impacting areas within the responsibility of the Fish and Wildlife Service.

It is the desire of Yolo County, as Airport sponsor, to complete the EA/EIR in a timely fashion, therefore an early response to this inquiry is requested.

Please call this office if you have any questions concerning this matter.

Sincerely,

Keith Ott

Attach: Draft EA/EIR for Yolo County Airport Master Plan

cc: Federal Aviation Administration (Jim Cavalier)
P&D Aviation (Mike McClintock)
October 13, 1997

Philip Hogan
Yolo County Resource and Conservation District
221 West Court Street, Suite 8
Woodland, CA 95695

Re: Yolo County Airport Master Plan Environmental Assessment (EA) Coordination

Dear Mr. Hogan:

The County of Yolo has filed a “Notice of Completion” with the State Clearinghouse for a combined CEQA/NEPA environmental review document entitled “Draft Environmental Assessment / Environmental Impact Report: Yolo County Airport Master Plan.” The attached copy of the draft EA/EIR is being submitted to Soil Conservation Service’s local office for review and comment. The draft EA/EIR evaluates the proposed future development of the airport, including proposed new aviation and commercial development projects.

In order to comply with the requirements of the County of Yolo pursuant to the California Environmental Quality Act of 1970 and the requirements of the Federal Aviation Administration pursuant to the National Environmental Policy Act of 1969, we request your comments concerning the possibility of the proposed airport development actions impacting areas within the responsibility of the Soil Conservation Service.

It is the desire of Yolo County, as Airport sponsor, to complete the EA/EIR in a timely fashion, therefore an early response to this inquiry is requested.

Please call this office if you have any questions concerning this matter.

Sincerely,

Keith Ott

Attach: Draft EA/EIR for Yolo County Airport Master Plan

cc: Federal Aviation Administration (Jim Cavalier)
P&D Aviation (Mike McClintock)
October 13, 1997

Mr. Dick McCarthy
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814

Re: Yolo County Airport Master Plan Environmental Assessment (EA) Coordination

Dear Mr. McCarthy:

The County of Yolo has filed a “Notice of Completion” with the State Clearinghouse for a combined CEQA/NEPA environmental review document entitled “Draft Environmental Assessment / Environmental Impact Report: Yolo County Airport Master Plan.” The attached copy of the draft EA/EIR is being submitted to COE’s Sacramento district office for review and comment. The draft EA/EIR evaluates the proposed future development of the airport, including proposed new aviation and commercial development projects.

In order to comply with the requirements of the County of Yolo pursuant to the California Environmental Quality Act of 1970 and the requirements of the Federal Aviation Administration pursuant to the National Environmental Policy Act of 1969, we request your comments concerning the possibility of the proposed airport development actions impacting areas within the responsibility of the U.S. Army Corps of Engineers.

It is the desire of Yolo County, as Airport sponsor, to complete the EA/EIR in a timely fashion, therefore an early response to this inquiry is requested.

Please call this office if you have any questions concerning this matter.

Sincerely,

Keith Ott

Attach: Draft EA/EIR for Yolo County Airport Master Plan

cc: Federal Aviation Administration (Jim Cavalier)
P&D Aviation (Mike McClintock)
October 13, 1997

Mr. David Tomsovic
Office of Federal Activities, E-3
U.S. Environmental Protection Agency
Region IX
75 Hawthorne St.
San Francisco, CA 94105

Re: Yolo County Airport Master Plan Environmental Assessment (EA) Coordination

Dear Mr. Tomsovic:

The County of Yolo has filed a “Notice of Completion” with the State Clearinghouse for a combined CEQA/NEPA environmental review document entitled “Draft Environmental Assessment / Environmental Impact Report: Yolo County Airport Master Plan.” The attached copy of the draft EA/EIR is being submitted to EPA’s regional office for review and comment. The draft EA/EIR evaluates the proposed future development of the airport, including proposed new aviation and commercial development projects.

In order to comply with the requirements of the County of Yolo pursuant to the California Environmental Quality Act of 1970 and the requirements of the Federal Aviation Administration pursuant to the National Environmental Policy Act of 1969, we request your comments concerning the possibility of the proposed airport development actions impacting areas within the responsibility of the Environmental Protection Agency.

It is the desire of Yolo County, as Airport sponsor, to complete the EA/EIR in a timely fashion, therefore an early response to this inquiry is requested.

Please call this office if you have any questions concerning this matter.

Sincerely,

Keith Ott

Attach: Draft EA/EIR for Yolo County Airport Master Plan

cc: Federal Aviation Administration (Jim Cavalier)
P&D Aviation (Mike McClinton)
October 13, 1997

Nikolas B. Nikas
Division Chief
Natural and Technical Hazards
Federal Emergency Management Agency
Region IX, Building 105
Presidio of San Francisco, CA 94129

Re: Yolo County Airport Master Plan Environmental Assessment (EA) Coordination

Dear Mr. Nikas:

The County of Yolo has filed a “Notice of Completion” with the State Clearinghouse for a combined CEQA/NEPA environmental review document entitled “Draft Environmental Assessment / Environmental Impact Report: Yolo County Airport Master Plan.” The attached copy of the draft EA/EIR is being submitted to FEMA’s regional office for review and comment. The draft EA/EIR evaluates the proposed future development of the airport, including proposed new aviation and commercial development projects.

In order to comply with the requirements of the County of Yolo pursuant to the California Environmental Quality Act of 1970 and the requirements of the Federal Aviation Administration pursuant to the National Environmental Policy Act of 1969, we request your comments concerning the possibility of the proposed airport development actions impacting areas within the responsibility of the Federal Emergency Management Agency.

It is the desire of Yolo County, as Airport sponsor, to complete the EA/EIR in a timely fashion, therefore an early response to this inquiry is requested.

Please call this office if you have any questions concerning this matter.

Sincerely,

Keith Ott

Attach: Draft EA/EIR for Yolo County Airport Master Plan

cc: Federal Aviation Administration (Jim Cavalier)
P&D Aviation (Mike McClintock)
October 29, 1997

IYOL051
03-YOL-113 P.M. R4.105
Yolo County Airport Master Plan EIR/EA
Notice of Preparation

Mr. Larry Rillera
Yolo County General Services Agency
625 Court Street, Room 203
Woodland, CA 95695

Dear Mr. Rillera:

Thank you for the opportunity to review and comment on the Yolo County Airport Master Plan EIR/EA Notice of Preparation.

COMMENTS:

- The Yolo County Airport Master Plan EIR/EA should address impacts to the State Route 113/Covell Boulevard and State Route 128/I505/Russell Boulevard Interchanges. Level of Service D traffic operation should be maintained on these State highway facilities.

Please provide our office with any further action taken regarding this master plan. If you have any questions regarding these comments, please contact Ken Champion at 916-324-6642.

Sincerely,

JEFFREY PULVERMAN, Chief
Office of Transportation
Planning - Metropolitan
January 2, 1998

Leigh Jordan, Coordinator
Northwest Information Center
Sonoma State University
1801 East Cotati Avenue
Rohnert Park, CA 94928-3609

re: Yolo County Airport Master Plan EA/EIR

Dear Ms. Jordan:

Yolo County is preparing an Environmental Assessment/Environmental Impact Report for the adoption and implementation of the Yolo County Airport Master Plan. That plan will provide the framework for airport growth and development over the next twenty years.

Please conduct a records search for the airport site and its immediate surroundings with respect to any sites of historical, cultural or archeological significance. This letter is your authorization to expend up to four (4) hours in such records search. A map of the airport vicinity is attached for your information and use.

If you have any questions, please contact the County’s EA/EIR consultant, Mr. Michael McClinton, AICP, at (510) 839-7337.

Thank you for your assistance and consideration.

Sincerely,

Keith Ott

attach

c: Mark Hamblin, Yolo County Community Development
    Mike McClinton, P&D Consultants
January 5, 1998

Yolo County
General Services
625 Court Street, Room 203
Woodland CA 95695

Dear Mr. Ott:

We have reviewed the Airport Master Plan Environmental Assessment/Environmental Impact Report and find that it adequately addresses air quality impacts. It will be important to mitigate short-term construction impacts for dust and PM-10 by implementing the mitigation measures contained in section 5.5.3.

We appreciate the opportunity to comment on the Airport Master Plan EIR. If you have any questions, please give me a call at (530) 757-3668.

Sincerely,

Carl Vandagriff
Senior Air Quality Planner

f:\planning\air\airport
January 6, 1998

Jeffrey Pulverman, Chief
Office of Transportation Planning (Metropolitan)
CALTRANS District THREE
Sacramento Area Office (MS41)
P O Box 942874
Sacramento, CA 94274-0001

re: Yolo County Airport draft Master Plan EA/EIR (IYOLO051)

Dear Mr. Pulverman:

In response to your letter of October 29, 1997, our consultant on the above project, Michael McClintock of P&D Consultants, contacted Andrew Strang of CALTRANS for traffic information on the SR113/Covell Blvd and SR-128/I-505/Russell Blvd interchanges as you requested.

On the basis of the fact that the Yolo County Airport currently generates only about 189 ADT and the ADT would total 385 ADT if the project were to complete a full buildout by 2015 as shown in the master plan, Mr. Strang concluded that the proposed project would have little likelihood of having any significant impact on the two subject interchanges and would not reduce intersection levels of service below LOS D.

This fact will be noted in the final EA/EIR.

Thank you for your assistance and consideration.

Sincerely,

Keith Ott

C: P&D Consultants
   Mark Hamblin, Yolo County Planning Department
   EA/EIR file of record
RE: Yolo County Airport Master Plan

Date: January 7, 1998

Mr. Larry Rillera, Manager Parks and Facilities
Yolo County General Services Agency
625 Court St., Room 203
Woodland, CA 95695

Dear Mr. Rillera:

Please find enclosed a copy of the following:

1) Form 1006, Farmland Conversion Impact Rating
2) Soils Map for project area
3) Documentation for Part II and IV.

#AD1006 Documentation for Yolo County Airport Master Plan

<table>
<thead>
<tr>
<th>Soil Symbol</th>
<th>Acres</th>
<th>Storie Index</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>HdA</td>
<td>56</td>
<td>63</td>
<td>Locally Important</td>
</tr>
<tr>
<td>Ms</td>
<td>23</td>
<td>51</td>
<td>Locally Important</td>
</tr>
<tr>
<td>TOTAL</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PART IV C

Acres converted/ acres farmland in County X 100 = 79.0/446,000 X 100 = .02%

PART V Value Determination

<table>
<thead>
<tr>
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<th>Acres</th>
<th>Storie Index</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>HdA</td>
<td>56</td>
<td>63</td>
<td>3528</td>
</tr>
<tr>
<td>Ms</td>
<td>23</td>
<td>51</td>
<td>1173</td>
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<tr>
<td>TOTAL</td>
<td>79</td>
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<td>4701</td>
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</table>

4701/79 = 60
### PART IV D

Acres to be converted/acres with storie index 60 or higher.

<table>
<thead>
<tr>
<th>Soil Symbol</th>
<th>Storie Index</th>
<th>Acres in County</th>
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<td>68</td>
<td>2,275</td>
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<td>AaB</td>
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<tr>
<td>BrA</td>
<td>81</td>
<td>24,663</td>
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<tr>
<td>Ch</td>
<td>61</td>
<td>360</td>
</tr>
<tr>
<td>HdA</td>
<td>63</td>
<td>3,032</td>
</tr>
<tr>
<td>HdC</td>
<td>60</td>
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<tr>
<td>La</td>
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<td>2,675</td>
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<tr>
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<td>25,931</td>
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<td>65</td>
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<tr>
<td>Sv</td>
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</tr>
<tr>
<td>Soil Symbol</td>
<td>Storie Index</td>
<td>Acres in County</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>TaB</td>
<td>69</td>
<td>1,326</td>
</tr>
<tr>
<td>Tb</td>
<td>77</td>
<td>4,043</td>
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<tr>
<td>Tc</td>
<td>81</td>
<td>1,940</td>
</tr>
<tr>
<td>Te</td>
<td>69</td>
<td>2,357</td>
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<tr>
<td>Tf</td>
<td>69</td>
<td>725</td>
</tr>
<tr>
<td>Va</td>
<td>81</td>
<td>552</td>
</tr>
<tr>
<td>Vb</td>
<td>77</td>
<td>2,350</td>
</tr>
<tr>
<td>Ya</td>
<td>100</td>
<td>42,422</td>
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<td>Yb</td>
<td>90</td>
<td>4,983</td>
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<tr>
<td>Za</td>
<td>95</td>
<td>3,476</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>228,635.0 acres in Yolo County with Storie Index 60 or higher.</td>
</tr>
</tbody>
</table>

+ + (correlating with 1006 form): Percentage of farmland in government jurisdiction with same or relative higher value = 228,635/446,000 X 100 = 51%.

+ Percentage of farmland to be converted with same or relative higher value = 79/228,635 X 100 = .03%

If you have any questions, please call me.

Sincerely yours,

PHIL HOGAN  
District Conservationist

cc: Yolo County Resource Conservation District
### FARMLAND CONVERSION IMPACT RATING

**PART I (To be completed by Federal Agency)**

**Yolo County Airport Master Plan**

**Proposed Land Use**

**Stormwater Basin, Airport Offices**

**Date Of Land Evaluation Requested:** January 7, 1998

**Federal Aviation Administration**

**County and State:** Yolo, CA

**PART II (To be completed by SCS)**

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐

(If no, the FPFA does not apply — do not complete additional parts of this form.)

- **Acres Irrigated:** 375,335
- **Average Farm Size:** 569
- **Farmable Land In Govt. Jurisdiction:** 446,000
- **%:** 67
- **Amount Of Farmland As Defined In FPFA Acres:** 446,000
- **%:** 100

**Major Crops:** Tomatoes, sugar beets, rice, corn, wheat, tree crops

**Name Of Land Evaluation System Used:** None

**Name Of Local Site Assessment System:** None

**Date Land Evaluation Returned By SCS:** January 12, 1998

**Index Used:**

<table>
<thead>
<tr>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
<th>Site D</th>
</tr>
</thead>
<tbody>
<tr>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PART III (To be completed by Federal Agency)**

A. Total Acres To Be Converted Directly

B. Total Acres To Be Converted Indirectly

C. Total Acres In Site

**PART IV (To be completed by SCS) 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 SCS) Land Evaluation Criteria**

Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)

<table>
<thead>
<tr>
<th>Site Assessment Criteria (These criteria are explained in 7 CFR 658.51d)</th>
<th>Maximum Points</th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
<th>Site D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Area In Nonurban Use</td>
<td>15</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perimeter In Nonurban Use</td>
<td>10</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Percent Of Site Being Farmed</td>
<td>20</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Protection Provided By State And Local Government</td>
<td>20</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Distance From Urban Builtp Area</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Distance To Urban Support Services</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Size Of Present Farm Unit Compared To Average</td>
<td>10</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Creation Of Nonfarmable Farmland</td>
<td>10</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Availability Of Farm Support Services</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. On-Farm Investments</td>
<td>20</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Effects Of Conversion On Farm Support Services</td>
<td>10</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>12. Compatibility With Existing Agricultural Use</td>
<td>10</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SITE ASSESSMENT POINTS**

160 62

**PART VII (To be completed by Federal Agency)**

Relative Value Of Farmland (From Part V)

Total Site Assessment (From Part VI above or a local site assessment)

**TOTAL POINTS (Total of above 2 lines)**

260 122

*Was A Local Site Assessment Used?* Yes ☐ No ☐

**Site Selected:** A

Reason For Selection:

(Save instructions on reverse side)
Regulatory Branch (199700739)

Keith Ott
County of Yolo
General Services Agency
625 Court Street, Room 203
Woodland, California 95695

Dear Mr. Ott:

I am responding to your request for comments regarding the Draft Environmental Impact Report (DEIR) for the Yolo County Airport Master Plan.

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 or excavation that has more than minimal effect on the aquatic environment in these waters. Waters of the United States include, but are not limited to, the following: perennial and intermittent streams, lakes, ponds, as well as wetlands in marshes, wet meadows, and side hill seeps. Project features that would occur from development within the study areas that result in the discharge of fill material into waters of the United States will require Department of the Army authorization prior to initiating work.

The range of alternatives considered in an EIR should include alternatives that avoid fill in wetlands or other waters of the United States within the study area. Every effort should be made to avoid project features which require the discharge of fill into waters of the United States. In the event it can be clearly demonstrated that there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the losses resulting from project implementation.

Based on the information in the DEIR, it appears that a substantial area of jurisdictional waters may be impacted by the proposed project. However, in a recent telephone conversation with Mr. Mike McClintock, of P&D Aviation, he was unsure whether the area called a "wetland" in the DEIR actually met the criteria under the Corps 1987, Wetland Delineation Manual.
Before any work may take place, the project boundaries must be delineated for waters of the United States, including wetlands. Depending on the current and intended use of the land in question will determine whether the Corps or the Natural Resources Conservation Service (NRCS) would be the lead Federal agency responsible for verifying the wetland boundaries. Once the waters of the United States are verified, any work resulting in the discharge of dredged or fill material into said waters will require Corps authorization prior to project implementation.

If you have any questions, please write to David Tedrick, Room 1480, or telephone (916) 557-7724. We appreciate the opportunity to be included in your review process.

Sincerely,

Jim Monroe, P.E., Esq.
Chief, Delta Office
Mr. Larry Rillera  
Manager of Parks & Facilities  
625 Court St.  
Room 203  
Woodland, CA 95695

Dear Mr. Rillera:

Enclosed is the Highly Erodible Land and Wetland Conservation Determination Form NRCS-CPA-026 for the following land units. This determination is part of the conservation provisions of the Food Security Act of 1985, as amended, and was made in response to your request for comments on the Airport Master Plan and to maintain the farm operator’s USDA program benefits.

<table>
<thead>
<tr>
<th>Farm</th>
<th>Tract</th>
<th>Field</th>
<th>Subfield</th>
<th>Acres</th>
<th>HEL</th>
<th>WET</th>
</tr>
</thead>
<tbody>
<tr>
<td>YCGSA</td>
<td>7209</td>
<td>UN</td>
<td>1</td>
<td>498</td>
<td>N</td>
<td>X</td>
</tr>
</tbody>
</table>

There is no highly erodible land on this tract.

As far as wetlands are concerned, if you plan to maintain, improve, or install a drainage system, you should notify this office well in advance of your plan to alter a wetland area so the alteration can be done with full knowledge of its potential effect on your USDA program eligibility. If you plan to manipulate any potential wet areas, please have the farm operator or yourself contact our office.

As documented on the attached form, there are 12 acres of wetlands ("W"), 19.3 acres of artificial wetlands ("AW"), 47.7 acres of non-wetland ("NW"), and 419 acres that remain on the airport property that were not inventoried ("NI"). Please note the cropping restrictions for each of these wetland categories on page 2 of the form.

If you do not agree with this determination you may request a reconsideration within 15 days of this decision. Your request should be made in writing to the above office address and should state the reason for the request for the reconsideration.

Sincerely yours,

PHIL HOGAN  
District Conservationist

cc: USDA Farm Service Agency  
Duane Chamberlain, operator
HIGHLY ERODIBLE LAND AND WETLAND
CONSERVATION DETERMINATION

Name: Y.C. General Services Agency  Tract: 7209  Farm: YCGSA
County: Yolo  Request Date: 01/10/98  FSA Farm No.: 

Section I - Highly Erodible Land

Fields in this section have undergone a determination of whether they were highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

<table>
<thead>
<tr>
<th>Field</th>
<th>HEL (Y/N)</th>
<th>Sodbusted (Y/N)</th>
<th>Acres</th>
<th>Determination Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN</td>
<td>N</td>
<td>N</td>
<td>79.0</td>
<td>01/10/98</td>
</tr>
</tbody>
</table>

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Wetlands Explanation section for additional information regarding allowable activities under the wetland conservation provisions of the Farm Bill and Section 404 of the Clean Water Act.

<table>
<thead>
<tr>
<th>Field</th>
<th>Wetland Label</th>
<th>Acres</th>
<th>Determination Date</th>
<th>Certification Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN</td>
<td>W</td>
<td>12.0</td>
<td>01/10/98</td>
<td>01/10/98</td>
</tr>
<tr>
<td>UN</td>
<td>AW</td>
<td>19.3</td>
<td>01/10/98</td>
<td>01/10/98</td>
</tr>
<tr>
<td>UN</td>
<td>NI</td>
<td>419.0</td>
<td>01/10/98</td>
<td>01/10/98</td>
</tr>
<tr>
<td>UN</td>
<td>NW</td>
<td>47.7</td>
<td>01/10/98</td>
<td>01/10/98</td>
</tr>
</tbody>
</table>

Wetlands Explanation

<table>
<thead>
<tr>
<th>Wetland Label</th>
<th>Explanatory Comments</th>
</tr>
</thead>
</table>
### Wetlands Explanation

<table>
<thead>
<tr>
<th>Label</th>
<th>Explanatory Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AW</strong></td>
<td>Artificial or irrigation induced wetland; Description: Man-made wetlands; Authorized Cropping: No restrictions; Authorized Maintenance: No restrictions; If you plan to clear, drain, fill, level or manipulate these areas contact COE**.</td>
</tr>
<tr>
<td><strong>NI</strong></td>
<td>Not Inventoried; Description: An area where no wetland determination has been completed; Authorized Cropping: May be farmed as long as no woody vegetation is removed and no hydrologic manipulation is undertaken; Authorized Maintenance: Request determination from NRCS* prior to initiating any manipulation; If you plan to clear, drain, fill, level or manipulate these areas contact NRCS* and COE**.</td>
</tr>
<tr>
<td><strong>NW</strong></td>
<td>Non-wetland; Description: An area that does not meet wetland criteria under natural conditions or wetlands that were converted prior to 12/23/85 not cropped prior to 12/23/85, does not meet wetland criteria, and has not been abandoned; Authorized cropping: No Restrictions; Authorized Maintenance: No restrictions unless the manipulation would convert adjacent wetland labels.</td>
</tr>
<tr>
<td><strong>W</strong></td>
<td>Wetland; Description: An area that meets the wetland criteria including wetland farmed under natural conditions. Includes abandoned wetland resulting from abandonment of other wetland labels; Authorized Cropping: May be farmed under natural conditions without removal of woody vegetation; Authorized Maintenance: At level needed to maintain original system on related farmed wetland, farm wetland pasture, and prior converted cropland. Must not convert additional wetlands or exceed &quot;original scope and effect&quot;; If you plan to clear, drain, fill, level or manipulate these areas contact NRCS* and COE**.</td>
</tr>
</tbody>
</table>

* Natural Resources Conservation Service
** Corps of Engineers

** Remarks:** Wetland determination performed at request of Larry Rillera, Manager, Yolo County Parks and Facilities, for Airport Master Plan.
HIGHLY ERODIBLE LAND AND WETLAND
CONSERVATION DETERMINATION

Name: Y.C. General Services Agency  Tract: 7209  Farm: YCGSA
County: Yolo  Request Date: 01/10/98  FSA Farm No.:

I certify that the above determinations are correct and were conducted in
accordance with policies and procedures contained in the National Food

Signature Designated Conservationist  Date
Phil Hogan    Jan 10, 1998

All USDA programs and services are available without regard to race, color,
national origin, religion, sex, age, marital status, or handicap.
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Soil name and description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HgA</td>
<td>Hillgate loam, moderately deep, 0 to 2 percent slopes</td>
</tr>
</tbody>
</table>

**Hillgate Loam** is more than 60 inches deep with a lighter colored surface layer and slopes of 0-2 percent. 
*Landform:* Terrace; *Frost Free Days:* 280-280; *Available Water Capacity:* 7.4-8.6"; *Wind Erosion Index Factor:* 56; *T Factor:* 5; *K Factor:* 0.43; *Irrigated Capability:* 3S; *Nonirrigated Capability:* 4S; *Hydric?:* NO; *Prime Farmland?:* NO; *MLRA:* 17; *Major Considerations:* NONE; *Landuse May Include:* NONE LISTED.

| Ms     | Myers clay |

**Myers Clay** is more than 60 inches deep with a lighter colored surface layer and slopes of 0-1 percent. 
*Landform:* Alluvial Fan; *Frost Free Days:* 260-280; *Available Water Capacity:* 8.4-9.6"; *Wind Erosion Index Factor:* 38; *T Factor:* 5; *K Factor:* 0.28; *Irrigated Capability:* 2S; *Nonirrigated Capability:* 4S; *Hydric?:* NO; *Prime Farmland?:* YES; *MLRA:* 17; *Major Considerations:* NONE; *Landuse May Include:* NONE LISTED.
### SOIL FEATURES

**Airport Master Plan**

<table>
<thead>
<tr>
<th>Map symbol and Soil name</th>
<th>Bedrock</th>
<th>Cemented pan</th>
<th>Subsidence</th>
<th>Risk of corrosion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depth</td>
<td>Hardness</td>
<td>Depth</td>
<td>Kind</td>
</tr>
<tr>
<td>Hda:</td>
<td>In</td>
<td>In</td>
<td>In</td>
<td>In</td>
</tr>
<tr>
<td>Hillgate-----------------</td>
<td>&gt;60</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Ms:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myers-------------------</td>
<td>&gt;60</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publications No. 1491, June, 1991). The "FSA Criteria" columns contain information needed for the Food Security Act determinations required by Section 512.11(h)(4) of the National Food Security Manual (August, 1991). See the "Criteria for Hydric Soils" footnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the report.

<table>
<thead>
<tr>
<th>Map Symbol</th>
<th>Component</th>
<th>Inclusion</th>
<th>Hydric Local Landform</th>
<th>Hydric Soils Criteria</th>
<th>FSA Criteria and Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myers clay</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPAY</td>
<td>YES</td>
<td>Basin Floor</td>
<td>4</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>BRENTWOOD</td>
<td>NO</td>
<td>NO</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RINCON</td>
<td>NO</td>
<td>NO</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNRANKED</td>
<td>NO</td>
<td>NO</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The "Hydric Soil Criteria" column indicates the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publications No. 1491, June 1991). The "FSA Criteria" columns contain information needed for the Food Security Act determinations required by Section 512.11(h)(4) of the National Food Security Manual (August, 1991). See the "Criteria for Hydric Soils" footnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the report.

<table>
<thead>
<tr>
<th>Map Symbol</th>
<th>Component (C)/</th>
<th>Inclusion (I)</th>
<th>Hydric</th>
<th>Local Landform</th>
<th>Hydric Soil Criteria</th>
<th>FSA Criteria and Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hydric Criteria</td>
<td>Meets</td>
</tr>
<tr>
<td>A:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Code Citeria</td>
<td>Criteria</td>
</tr>
<tr>
<td>Hillgate low,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hillgate (H)</td>
<td>NO</td>
</tr>
<tr>
<td>moderately deep, 0 to 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 percent slopes--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TEHAMA (I)</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SAC YSIDRO</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(I)</td>
<td>NO</td>
</tr>
</tbody>
</table>
HYDRIC SOILS CRITERIA CODES AND DEFINITIONS

Endnote -- HYDRIC SOILS LIST

The column 'Natural Condition of the Soil' indicates the following information: 'Wooded' indicates the soil supports woody vegetation under natural conditions; 'Farmable' indicates the soil can be farmed under natural conditions without removing woody vegetation or other manipulation; and 'Neither' indicates neither of the above conditions are met.

1. All Histosols, except Polinte, or
2. Soils in Aquic suborders, great groups, or subgroups, Albollic suborder, Aquiclude, Pachic subgroups, or Cumelic subgroups that are:
   a. somewhat poorly drained with a water table equal to 0.0 foot (ft.) from the surface during the growing season, or
   b. poorly drained or very poorly drained and have either:
      (1) water table equal to 0.0 ft. during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in.), or for other soils.
      (2) water table at less than or equal to 0.5 ft. from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h.) in all layers within 20 in., or
      (3) water table at less than or equal to 1.0 ft. from the surface during the growing season, if permeability is less than 6.0 in./h. in any layer within 20 in., or
3. Soils that are frequently ponded for long or very long duration during the growing season, or
4. Soils that are frequently flooded for long or very long duration during the growing season.
### Engineering Index Properties

**Airport Master Plan**

<table>
<thead>
<tr>
<th>Map symbol</th>
<th>Depth</th>
<th>Soil Texture</th>
<th>Classification</th>
<th>Fragmenta</th>
<th>Percentage passing sieve number</th>
<th>Liquid Limit</th>
<th>Plastic Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unified</td>
<td>AASHTO</td>
<td>-10</td>
<td>2-10</td>
<td>4</td>
</tr>
<tr>
<td>HDA:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pct</td>
<td>Pct</td>
<td></td>
</tr>
<tr>
<td>Hillgate---</td>
<td>0-25</td>
<td>Loam</td>
<td>ML, CL-ML</td>
<td>A-4</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>25-29</td>
<td>Clay</td>
<td>CH, CL</td>
<td>A-7</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>30-70</td>
<td>Clay loam,</td>
<td>CL</td>
<td>A-6</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>silty clay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>clay loam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>loam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myer-----</td>
<td>0-40</td>
<td>Clay</td>
<td>CH</td>
<td>A-7</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>40-60</td>
<td>Clay</td>
<td>CH</td>
<td>A-7</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>
PHYSICAL PROPERTIES OF SOILS
Airport Master Plan

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer.)

<table>
<thead>
<tr>
<th>Map symbol</th>
<th>Depth</th>
<th>Clay</th>
<th>Moist</th>
<th>Permeability</th>
<th>Available water</th>
<th>Shrink-swell capacity</th>
<th>Organic matter</th>
<th>Erosion factor</th>
<th>Wind erodibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSA:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hillgate---</td>
<td>0-25</td>
<td>10-25</td>
<td>1.45-1.55</td>
<td>0.60-2.00</td>
<td>0.14-0.16</td>
<td>Low</td>
<td>0.5-1.0</td>
<td>0.47</td>
<td>0.43</td>
</tr>
<tr>
<td></td>
<td>10-25</td>
<td>10-25</td>
<td>1.45-1.55</td>
<td>0.60-2.00</td>
<td>0.14-0.16</td>
<td>Low</td>
<td>0.5-1.0</td>
<td>0.47</td>
<td>0.43</td>
</tr>
<tr>
<td>Myers------</td>
<td>0-40</td>
<td>40-60</td>
<td>1.35-1.50</td>
<td>0.06-0.20</td>
<td>0.14-0.16</td>
<td>High</td>
<td>0.5-2.0</td>
<td>0.28</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>40-60</td>
<td>40-60</td>
<td>1.35-1.50</td>
<td>0.06-0.20</td>
<td>0.14-0.16</td>
<td>High</td>
<td>0.5-2.0</td>
<td>0.28</td>
<td>0.28</td>
</tr>
</tbody>
</table>
BUILDING SITE DEVELOPMENT
Airport Master Plan

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

<table>
<thead>
<tr>
<th>Map symbol and soil name</th>
<th>Shallow excavations</th>
<th>Dwellings without basements</th>
<th>Dwellings with basements</th>
<th>Small commercial buildings</th>
<th>Local roads and streets</th>
<th>Lawns and landscaping</th>
</tr>
</thead>
<tbody>
<tr>
<td>E: Myers</td>
<td>Severe: cutbanks</td>
<td>Severe: shrink-swell</td>
<td>Severe: shrink-swell</td>
<td>Severe:</td>
<td>Severe:</td>
<td>Severe: too clayey</td>
</tr>
</tbody>
</table>
CONSTRUCTION MATERIALS
Airport Master Plan

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

<table>
<thead>
<tr>
<th>Map symbol and soil name</th>
<th>Roadfill</th>
<th>Sand</th>
<th>Gravel</th>
<th>Topsoil</th>
</tr>
</thead>
<tbody>
<tr>
<td>H&amp;H:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millgate</td>
<td>Poor:</td>
<td>Improbable:</td>
<td>Improbable:</td>
<td>Fair:</td>
</tr>
<tr>
<td></td>
<td>low strength</td>
<td>excess fines</td>
<td>excess fines</td>
<td>small stones,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>thin layer</td>
</tr>
<tr>
<td>Hs:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myers</td>
<td>Poor:</td>
<td>Improbable:</td>
<td>Improbable:</td>
<td>Poor:</td>
</tr>
<tr>
<td></td>
<td>shrink-swell,</td>
<td>excess fines</td>
<td>excess fines</td>
<td>too clayey</td>
</tr>
<tr>
<td></td>
<td>low strength</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PRIME FARMLAND
Airport Master Plan

Soil name

[Map symbol]

Myers clay (where irrigated)
Keith Ott
Director of General Services
County of Yolo
625 Court Street Room 203
Woodland, CA 95695

Dear Mr. Ott:

Thank you for the opportunity to review the Draft Environmental Assessment and Environmental Impact Report: Yolo County Airport Master Plan. The Federal Emergency Management Agency (FEMA) has no comments at this time. It does not appear that the proposed airport development actions impact areas within the responsibility of FEMA that are not covered by the jurisdiction of local agencies. Please feel free to call me (415)923-7027 if I can be of further assistance.

Sincerely,

[Signature]

Sandro Amaglio
Regional Environmental Officer
January 23, 1998

Keith Ott
County of Yolo
General Services Agency
625 Court Street, Rm. B-03
Woodland, CA 95695

re: Cultural Resource Record Search for the Yolo County Airport Master Plan EA/EIR

Dear Mr. Ott:

Review of records and literature on file at this office indicates that the proposed project area contains no recorded Native American or historic cultural resources listed with the Historical Resources Information System. State and federal inventories list no historic properties within the project area. However, two properties that are listed on the State Office Of Historic Preservation’s Historic Properties Directory are located just outside of the southern boundary of the airport property. Our records indicate that 1% of the project area has been studied for cultural resources (True 1980).

At the time of Euroamerican contact the Native Americans that lived in the area spoke the Patwin language (Johnson 1978:350). Native American archaeological sites in this portion of Sonoma County tend to be situated on broad terraces near sources of water. The project area is located at the edge of the Yolo Basin on a broad terrace with several water sources. Consequently there is a high potential for identifying Native American sites in the project area.

Review of historic literature and maps on file in this office gave no indications of historic archaeological sites in the project area. With this in mind there is a low possibility identifying historic archaeological sites within the Airport Property.

As noted above, there are two historic properties located next to the southern boundary of the Airport Property. One of the properties, The Gottfried Schneiser House, has been determined to appear eligible for the National Register Of Historic Places. The William Oeste House has been determined to appear eligible for local listing. There is a possibility changes to the existing airport facilities may impact the historical setting of these properties.
RECOMMENDATIONS:

The recommendations below may be followed on a project specific basis.

1) There is a high possibility of identifying Native American cultural resources in the project area and further archival and field study by an archaeologist is recommended.

2) For Section 106 Compliance: Review for possible historic structures has included only those sources listed in the attached bibliography and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historic value. If the area of potential effect contains such properties it is recommended that the agency responsible for section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these properties.

Project Review and Compliance Unit
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
(916) 653-6624

For CEQA Compliance: Review for possible historic structures has included only those sources listed in the attached bibliography and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historic value. The area of potential effect may contain such properties. Once identified, the properties should be assessed before commencement of project activities.

3) If cultural resources are encountered during the project, avoid altering the materials and their context until a cultural resource consultant has evaluated the situation. Project personnel should not collect cultural resources. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits, often in old wells and privies.

4) Identified cultural resources should be recorded on DPR 523 (historic properties) forms.
Thank you for using our services. Please contact our office if you have any questions, (707) 664-2494.

Sincerely,

Lynn Compas
Researcher II
LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources Information System, the following literature was reviewed:

Fisher, Ray
1983 Yolo Landmarks Tour. Yolo County Historical Society.

General Land Office
1858 Survey Plat for Township 8 North/Range 1 East.
1858 Survey Plat for Township 9 North/Range 1 East.
1865 Survey Plat for Township 8 North/Range 1 East.

Gudde, Erwin G.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle

Johnson, Patti J.

Kroeber, A.L.


State of California Department of Parks and Recreation

State of California Office of Historic Preservation **


True, D. L.


**Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, and Historic Points of Interest.
<table>
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<th>CR 30B</th>
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HISTORIC RESOURCES INVENTORY

IDENTIFICATION
1. Common name: 
2. Historic name: Gottfried Schmeiser family home
3. Street or rural address: CR 31 & CR 96 Box 2560 (Rural Davis-Area 6) 
   City: Davis 
   Zip: 95616 
   County: Yolo
4. Parcel number: 37-100-01
5. Present Owner: William O. Russell 
   Address: 1600 Holcombe Blvd., Box 6015 Spellman Rd., Houston, ZIP 77235 
   Ownership is: Public Private X
6. Present Use: residence 
   Original use: residence

DESCRIPTION
7a. Architectural style: 
7b. Briefly describe the present physical appearance of the site or structure and describe any major alterations from its original condition:

The owner-built one story, hip roofed residence is a wood frame building surfaced in shiplap. An L-shaped verandah supported by elegantly proportioned square columns wraps around two sides of the house. Picket-like wooden cresting tops the small structure. Eaves are soffited and the frieze is a plain board with brackets at the corners. The brick foundation extends to the raised first floor height. Mature ornamental planting, a rare wisteria vine and three palms comprise the building’s landscaping. The “cold” cellar was equipped for food storage. House was built on one level because Schmeiser’s two-story home in Germany had burned and he feared for the safety of his family.
In 1909 Schmeiser set out the nearby eucalyptus grove on the NE corner of CR 31 and CR 95.

8. Construction date: 
   Estimated 1868
9. Architect --
10. Builder/Owner, Gottfried Schmeiser, a skilled cabinetmaker
11. Approx. property size (in feet) 
   Frontage 
   Depth 
   or approx. acres 142.61
12. Date(s) of enclosed photograph(s) 
   Fall 1985
13. Condition: Excellent ___ Good ___ Fair X Deteriorated ___ No longer in existence ___

14. Alterations: yes

15. Surroundings: (Check more than one if necessary) Open land X Scattered buildings ___ Densely built-up ___ Residential ___ Industrial ___ Commercial ___ Other: ___

16. Threats to site: None known X Private development ___ Zoning ___ Vandalism ___ Public Works project ___ Other: ___

17. Is the structure: On its original site? X Moved? _____ Unknown? ___

18. Related features: Shed

SIGNIFICANCE
19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site.)
The structure possesses both architectural interest and historic significance. Though very small, the building is well proportioned and rather unusually and elegantly decorated. Godfried Schmeiser, who came to California in 1857, and his wife were both natives of Germany. Sophie Schmeiser was a member of the locally prominent Oeste family. Schmeiser, who began his farm with 160 acres had difficulty in obtaining clear title to his land and was finally given a U.S. patent signed by President Lincoln. Schmeiser's success as a grain and almond farmer enabled him to increase his Yolo County holdings to 325 acres and to 95 acres in Solano County. Besides his farming abilities, Schmeiser was also an engineer, a family trait that his son, Theodore pursued to a greater extent, becoming a well-known agricultural manufacturer. One Schmeiser daughter, Elmine, lived in the house and operated the ranch after her parent's death until recent years. The ranch and house are now part of the Russell family holdings, owned by another historically important Davisville family.

20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)
Architecture ______ Arts & Leisure ______
Economic/Industrial _____ Exploration/Settlement 1
Government ______ Military ______
Religion ______ Social/Education ______


22. Date form prepared 1980/1986*
By (name) Historic Environment Consultants
Organization Davis Historical Landmark Comm.
Address 226 F St.
City Davis Zip 95616
Phone: ______

HISTORIC RESOURCES INVENTORY

IDENTIFICATION
1. Common name: William Oeste family home
2. Historic name: William Oeste family home
3. Street or rural address: southside CR31 west of CR 96 (Rural Davis-Area 6)
   City: Davis Zip: 95616 County: Yolo
4. Parcel number: 37-100-09
5. Present Owner: John and James Street
   Address: Rt 2 Box 2563
   City: Davis Zip: 95616 Ownership is: Public Private X
6. Present Use: residence/farm Original use: residence/farm

DESCRIPTION
7a. Architectural style: 
7b. Briefly describe the present physical appearance of the site or structure and describe any major alterations from its original condition:
The Oeste building is basically comprised of three structures: the original two-story house, rectangular and gabled; a shed roofed addition at its rear; and a small one story gable roofed building adjoining the addition. The main house and rear one story cottage appear to be original, later joined by the shed roofed addition. Both structures are simple undorned vernacular buildings of distant Greek Revival origins. Windows are six panes over six and the surface material is shiplap. The proportions and window placement of the main house suggest those seen in some prefabricated houses in other parts of the state. The house and watertower were always painted cream with red roofs while the Oeste's owned the farm. Alterations include front and side porch additions and modifications. A water tower stands nearby, surfaced in shiplap, containing six-over-six paned windows and entry doors at both ground and second floor levels. A handsome fence with elegantly shaped pickets stands to the east of the house. A large barn, also a remnant of the early complex lies to the northeast of the house. Other structures include a 1935 Colonial Revival residence; and five sheds of various sizes. Plant materials are abundant and include several mature fig trees and one palm.

8. Construction date: Estimated Factual 1868
9. Architect:
10. Builder:
11. Approx. property size (in feet)
   Frontage Depth
   or approx. acreage 160
12. Date(s) of enclosed photograph(s)
    Spring 1986
13. Condition: Excellent _____ Good _____ Fair X Deteriorated _____ No longer in existence _____

14. Alterations: front and side porch additions and modifications

15. Surroundings: (Check more than one if necessary) Open land X Scattered buildings _____ Densely built-up _____ Residential _____ Industrial _____ Commercial _____ Other: ________________________________

16. Threats to site: None known. X Private development _____ Zoning _____ Vandalism _____
Public Works project _____ Other: ________________________________

17. Is the structure: On its original site? X Moved? _____ Unknown? _____

18. Related features: 1 barn, 5 sheds, 1 watertower, 1935 Colonial Revival house

SIGNIFICANCE
19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site.)

William Oeste, a member of the locally important Oeste family, built this house in 1868. The family, originally from Germany, settled in Yolo County in the late 1860's. William Oeste married Barbara Niedecker, also a native of Germany and took charge of his father Jacob's 320 acre grain producing ranch. Besides being a successful grain farmer, Oeste was a Trustee of the Fairfield School District for 50 years. The Oeste family continued to live here for many years, and after their father's death, the three children that remained on the farm built the Colonial Revival style residence to the north east of this house.

The grouping of original Oeste family buildings is an important fragment of Davis' agricultural heritage both historically and culturally. Its simplicity reflects its early farm house uses.

20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)

Architectural __________ Arts & Leisure __________
Economic/Industrial X Exploration/Settlement __________
Government __________ Military __________
Religion __________ Social/Education __________

21. Sources (List books, documents, surveys, personal interviews and their dates).

Interview with Linda Street, Dec 12, 1979
Davisville '68, page 197
Historical Commission List

22. Date form prepared 1980/1986*
By (name) Historical Environment Consultant
Organization Davis Historical Landmark Comm.
Address: 226 P. St.
City Davis Zip 95616
Phone: ________________________________

* Information updated in 1986 County of Yolo Survey by Les-Thomas Assoc., 2773 25th St., Sacramento, 95818 (916) 445-7083
memorandum

to: Keith Ott, General Services Agency
from: Thomas F. Tracy
subject: Airport Master Plan Environmental Assessment
date: March 4, 1998

We have received your letter of February 17, 1998, concerning the Draft Airport Master Plan Environmental Assessment (DAMPEA), dated October 10, 1997. We have the following comments:

TRAFFIC

SAFETY

The main issue here is traffic safety. The DAMPEA is correct (pages 5-77 and 5-78) in warning about encouraging drivers unfamiliar with the roads to use County Road 29 just west of County Road 98. Appropriate signing should encourage drivers to use County Road 31 and County Road 95 to and from the airport.

Over the past four years, the following numbers of accidents have occurred at these locations:

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<th>Location</th>
<th>Number of accidents</th>
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<td>C.R. 95/Aviation Avenue</td>
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These are very small numbers of accidents. Considering the rather minor increase in traffic volume mentioned in the DAMPEA, I would consider the effect of the project on accidents at these intersections to be insignificant.

CONGESTION

It is a requirement that environmental documents address traffic congestion, regardless of its appropriateness to the location. The traffic volume counts
mentioned in the DAMPEA are still valid. The estimated traffic generated by the
project will be about 210 vehicles a day by the year 2015. This is a very small
increase in traffic, and its effects are insignificant. We have no recorded data on
turning movements at the intersections, and we believe the intersections can
handle the anticipated increase in traffic volume with their current configuration.
The vehicle volume at the C.R. 31/C.R. 95 intersection does not meet the
warrants for a signal. We do not intend to install a signal light at this location now
or at any time that conditions do not meet warrants for a signal. This project will
not generate sufficient additional traffic for the signal warrants to be met. For
comparative purposes, note that there are no standard traffic signals in the
unincorporated area of the County now.

DRAINAGE

We have reviewed the October 1984 Borcalli study. We understand the importance of
your request for validation of the study's conclusion about the quantity of stormwater
runoff, but we have neither the resources or the historical data to validate the consultant's
figures. We have, however, a very high regard for the consultant, and on that basis,
would consider the conclusion reliable. If you believe an independent verification is
advisable, you should retain another hydrologic consulting engineer with the necessary
expertise and access to historic data. Note that in 1995 when we wanted to set the
elevation of a bridge over Willow Slough Bypass, we retained Borcalli and Associates to
perform the hydrological analysis.

The DAMPEA refers to the floodplain map produced by FEMA with the revision date
8/97. This is the most recent map available now.

cc: John Bencomo
    Steve Brown
Author: Keith Ott at "YOLO_ADMIN"  
Date: 3/6/98 7:56 AM  
Priority: Normal  
To: Tom Tracy at "PUBWORKS"  
CC: Larry Rillera  
Subject: Re[2]: Road Study

--- Message Contents ---

Tom

I received your memo of March 4 re: traffic but it omitted requested response to the original memo I sent Tom Davis and the email below regarding turn in's and possibility of a traffic light at CR 95/31.

Thanks for the March 4th memo but would appreciate the additional info as well.

keith

--- Forward Header ---

Subject: Re[2]: Road Study
Author: Keith Ott at "YOLO_ADMIN"
Date: 3/5/98 8:13 AM

I'll have a copy of the information sheet we have brought to your offices this morning but the background is that a traffic study was obtained which showed the area and "road counts" (I gather) throughout that area. The area size looks to me to be about 1 mile by 1 mile with the intersection of CR 29 and CR 95 as the NW corner of the depiction.

The current request from residents stressed again as late as last night (joint airport advisory committees’ meeting which Lynnel always attends) was to:

1. validate the basic traffic info received in August 1996
2. review that data (or other road data) for intersections at CR 95/29; CR 31/95; the entrance to Aviation Ave from CR 95; and the entrance to Aviation Ave from CR 29 (including turning movements at these two airport access points)
3. obtain information from County as to intention to place a stop light at CR 31/95 intersection.

keith

--- Reply Separator ---

Subject: Re: Road Study
Author: Tommy Davis at "PUBWORKS"
Date: 3/4/98 7:20 PM

Keith,

I have searched for the details on this item and I can't find them. Please refresh my memory and I will get Tom or another staff member to complete the review right away.
Subject: Road Study
Author: Keith Ott at YOLO_ADMIN
Date: 2/24/1998 7:46 AM

Tom,

Were you able to pass to Tom Tracy the road survey questions re: airport that I had sent to you and Lynn? I did not send Tom a separate memo with the attachments. Question is kind of time sensitive given that Tom's last day with County is quickly approaching.

keith
to: Tom Davis
from: Tom Tracy
subject: Airport Master Plan Environmental Assessment Request
date: March 5, 1998

Attached is a copy of our review of the Airport Master Plan Environmental Assessment we sent to General Services Agency on March 4, 1998. Our review addressed the questions asked.

As background, note that the 8 1/2 x 11 sheet of traffic volumes is a photocopy of a portion of our Traffic Count Map, which we update periodically as we obtain new counts. This sheet is not a "traffic study", but a compilation of traffic volume data obtained in recent years. We are quite willing to supply any data we have to consultants writing environmental reports or traffic impact studies, but it is the responsibility of the consultant to judge whether the data is sufficient and to interpret the data with respect to the proposed project under consideration.

The traffic volume counts we get on rural roads do not change much over the years, with the exceptions of arterials connecting cities, or roads where some new traffic attractor has been constructed. County Roads 29 and 95 in this vicinity have about the same traffic now as a decade ago, and there is little need to take frequent counts. The original request from residents near the airport, most of whom are fully aware of the constancy of traffic volumes, to "validate" the counts appears to me to reflect their general attitude toward the airport.

The request for accident data at intersections is addressed in our previous memorandum. The accident data shows very low numbers, a total of eight accidents at four locations over four years, or an average of one accident every two years at each intersection. The small amount of additional traffic generated by the project, as described in the environmental document, will probably have an insignificant effect on the rate or number of accidents.

The request for turning movement counts at intersections is also addressed in our previous memo. We do not have any data. The usual reasons for collecting this data are for analyzing intersection capacity, for timing traffic signals, or adding turn lanes. These are congestion issues. None of these reasons pertain as there is no congestion on the roads in this vicinity.
The question about a stop light is also addressed in the previous memo. The reason the County has no standard stop lights (We have some flashing beacons, whose purpose is to draw attention to stop signs and also indicate caution to motorists on main roads, which is a traffic safety issue.) is that at present no intersection meets the necessary warrants (the minimum volume requirements as set forth in Federal and State guidelines) - the traffic volume is too low. The traffic volume at this intersection is far too low to begin considering a signal. (The purpose of a standard traffic signal is to allocate vehicular right of way, and this is a congestion issue.)

We would be happy to meet with residents to discuss traffic issues.

cc: John Bencomo
    Steve Brown
April 8, 1998

Mr. Larry Rillera
Manager of Parks & Facilities
625 Court St.
Room 203
Woodland, CA 95695

Dear Mr. Rillera:

Attached is the revised Wetland Determination form for the following land units:

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</table>

Please note that the area delineated in the 1/10/98 determination as "W" or wetland (12.0 acres) has been changed to "FW" Farmed Wetlands. Please note the definition on page 2 of the form for FW.

I have also attached the MOU between NRCS, Corps of Engineers, Fish and Wildlife Service and the EPA on wetlands, as well as several other fact sheets on 404 requirements from the EPA.

Please contact me if you have any questions. When you plan to put the stormwater detention basin in, the Corps will need to be contacted so that they can determine if a 404 permit is needed.

Sincerely yours

PHIL HOGAN
District Conservationist

cc:

USDA Farm Service Agency
Duane Chamberlain
HIGHLY ERODIBLE LAND AND WETLAND
CONSERVATION DETERMINATION

Name: Y.C. General Services Agency
Tract: 7209
County: Yolo
Request Date:

Farm: YCGSA
FSA Farm No.:

Section I - Highly Erodible Land

Fields in this section have undergone a determination of whether they were highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

<table>
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<tr>
<th>Field</th>
<th>HEL(Y/N)</th>
<th>Sodbusted(Y/N)</th>
<th>Acres</th>
<th>Determination Date</th>
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Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Wetlands Explanation section for additional information regarding allowable activities under the wetland conservation provisions of the Farm Bill and Section 404 of the Clean Water Act.

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HIGHLY ERODIBLE LAND AND WETLAND
CONSERVATION DETERMINATION

Name: Y.C. General Services Agency    Tract: 7209    Farm: YCGSA
County: Yolo    Request Date:    FSA Farm No.:  

Wetland Label

AW
Artificial or irrigation induced wetland;
Description: Man-made wetlands; Authorized Cropping: No
restrictions; Authorized Maintenance: No restrictions; If you plan
to clear, drain, fill, level or manipulate these areas contact COE**.

FW
Farmed Wetland;
Description: An area that is farmed, was manipulated prior to
12/23/85, but still meets wetland criteria; Authorized Cropping: May
be farmed as it was before 12/23/85; Authorized Maintenance: May be
maintained to the extent that existed before 12/23/85 if "as built"
records exist or may be maintained to 12/23/85 condition if no "as
built" records exist; If you plan to clear, drain, fill, level or
manipulate these areas contact NRCS* and COE**.

N
Not Inventoried;
Description: An area where no wetland determination has been
completed; Authorized Cropping: May be farmed as long as no woody
vegetation is removed and no hydrologic manipulation is undertaken;
Authorized Maintenance: Request determination from NRCS* prior to
initiating any manipulation; If you plan to clear, drain, fill,
level or manipulate these areas contact NRCS* and COE**.

NW
Non-wetland;
Description: An area that does not meet wetland criteria under
natural conditions or wetlands that were converted prior to 12/23/85,
not cropped prior to 12/23/85, does not meet wetland criteria, and
has not been abandoned; Authorized cropping: No Restrictions;
Authorized Maintenance: No restrictions unless the manipulation
would convert adjacent wetland labels.

* Natural Resources Conservation Service
** Corps of Engineers

Remarks
Area marked W on the 1/10/98 determination has been changed to FW. Acres of W
was 12.0, erroneously measure. FW is 3.3 acres. See definition of FW and
appropriate restrictions. If the County wants to build a stormwater detention
facility on the FW, they will need to consult with the Corps of Engineers to
see if a 404 permit is needed.
HIGHLY ERODIBLE LAND AND WETLAND
CONSERVATION DETERMINATION

Name: Y.C. General Services Agency    Tract: 7209    Farm: YCGSA
County: Yolo    Request Date:

FSA Farm No.:

I certify that the above determinations are correct and were conducted in
accordance with policies and procedures contained in the National Food

Signature Designated Conservationist    Date

Phil Hogan  Apr 08, 1998

All USDA programs and services are available without regard to race, color,
national origin, religion, sex, age, marital status, or handicap.
DATE: April 20, 1998

TO: Larry Rillera / Angie Montgomery

COMPANY: Yolo Co. General Services

FAX NUMBER: (530) 666-8117

FROM: Michael Jurca

NUMBER OF PAGES: (INCLUDING THIS COVER SHEET) 11

NOTES:

Angie,

This is the same information I faxed to Steve Brown at Yolo Co. Pub. works for same Co. Roads Larry is requesting.

Michael Jurca
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TALLY OF RECORDS LISTED = 19
STATEWIDE INTEGRATED TRAFFIC RECORDS SYSTEM (SWITRS)

EXTRACT OF HISTORY FILES GENERATED ON LIST

DESCRIPTION OF SWITRS COLLISION LISTING

COLLISION DATA

LINE 1

PRIMARY/SECONDARY ROAD SWITCH INDICATOR
   * - ROAD NAMES SWITCHED

ON PRIMARY ROAD - PRIMARY ROAD NAME

DIST - DISTANCE (IN FEET) AND

DR  - DIRECTION FROM SECONDARY ROAD

   - OR I, MEANING COLLISION OCCURRED AT THE INTERSECTION (WITH)

DAY  - DAY OF WEEK

LOC  - NATIONAL CRIME INFORMATION CENTER (NCIC) NUMBER FOR LOCATION

WETHR1 - FIRST OR ONLY INDICATION OF WEATHER

S  - SEVERITY OF COLLISION - HIGHEST DEGREE OF RESULTING INJURY
   F  - FATAL
   S  - SEVERE INJURY
   V  - VISIBLE INJURY
   C  - COMPLAINT OF PAIN
   T  - TOWAWAY

K  - NUMBER OF PERSONS KILLED

I  - NUMBER OF PERSONS INJURED

HR  - IF A HIT-AND-RUN COLLISION,
   F  - FELONY
   M  - MISDEMEANOR

FLT - NUMBER OF PARTY AT FAULT

PCF  - PRIMARY COLLISION FACTOR

LINE 2

FROM SECONDARY RD - SECONDARY ROAD NAME

DATE  - DATE OF COLLISION (MDOYyr)

TIME  - TIME OF COLLISION
   0000 TO 2359
   2500 (NOT STATED)

NCIC - NATIONAL CRIME INFORMATION CENTER NUMBER FOR JURISDICTION

WETHR2 - SECOND INDICATION OF WEATHER
LIGHTING
   DAYLIGHT
   DSK/DWN - DUSK TO DAWN
   DRK/LGTS - DARK WITH STREET LIGHTS
   DRK-N0 L - DARK NO STREET LIGHTS
   DRK-NF L - DARK STREET LIGHTS NOT FUNCTIONING

CNTL-DEV - CONTROL DEVICES
   CNTL OK - FUNCTIONING
   CNTL NF - CONTROLS NOT FUNCTIONING
   CNTL OBS - CONTROLS OBSCURED
   NO CNTL - NO CONTROLS PRESENT

TYPCLSN - TYPE OF COLLISION

LINE 3

IF A STATE HIGHWAY COLLISION,

SH
   ON - ON A STATE HIGHWAY
   AS - ASSOCIATED WITH A STATE HIGHWAY (WITHIN 250')
   RT - ROUTE NUMBER OF STATE HIGHWAY (OR INTERSTATE OR U S)
       (RARELY WITH SUFFIX TO INDICATE TRANSITIONAL STATUS)

POSTMILE - HIGHWAY MARKER
   (ALWAYS WITH CONDENSED PREFIX TO INSURE UNIQUENESS)

S - SIDE OF HIGHWAY

BADGE - OFFICER IDENTIFICATION NUMBER

RD - ROADWAY

-SURF - CONDITION OF ROADWAY SURFACE

-COND - ROADWAY CONDITION, 0 TO 3 INDICATIONS

PED ACT - PEDESTRIAN ACTION
   XWK INT - CROSSING IN CROSSWALK AT INTERSECTION
   XWK NINT - CROSSING IN CROSSWALK NOT AT INTERSECTION
   CROSSING - CROSSING NOT IN CROSSWALK
   IN ROAD - IN ROAD (INCLUDING SHOULDER)
   N IN RD - NOT IN ROAD
   SCH BUS - APPROACHING/LEAVING SCHOOL BUS
   BLANK - NO PEDESTRIAN INVOLVED

MVIVW - MOTOR VEHICLE INVOLVED WITH
LOCAL REPORT NO - IDENTIFICATION NUMBER OF COLLISION

DST - LOCAL REPORTING DISTRICT

BEAT - BEAT NUMBER

IF REPORTED BY THE CHP,

BEAT CLASS
M - MAJOR BEAT
N - NOT MAJOR BEAT

BEAT TYPE
1 - STATE HIGHWAY
2 - COUNTY ROAD LINE
3 - COUNTY ROAD AREA
4 - SCHOOLBUS ON CITY ROADWAY
5 - SCHOOLBUS NOT ON PUBLIC ROADWAY
6 - OFFROAD (UNIMPROVED)
7 - VISTA POINT OR REST AREA,
   SCALES OR INSPECTION FACILITY
8 - OTHER PUBLIC ACCESS (IMPROVED)

S - SPECIAL CONDITION
S - SCHOOLBUS INVOLVED
U - UNIVERSITY-REPORTED

IF A STATE HIGHWAY COLLISION, CALTRANS

DS - DISTRICT NUMBER

LOCATION TYPE
H - HIGHWAY
I - INTERSECTION
R - RAMP

RAMP/INTERSECTION DESCRIPTION
1 - RAMP EXIT, LAST 50 FEET
2 - MID-RAMP
3 - RAMP ENTRY, FIRST 50 FEET
4 - NON-STATE HIGHWAY, RAMP RELATED, WITHIN 100 FT
5 - INTERSECTION
6 - NON-STATE HIGHWAY, INTERSECTION RELATED, WITHIN 250 FT

PROCDT - PROCESSING DATE OF COLLISION (YR/MO/DAY)
<table>
<thead>
<tr>
<th>COL 1 - PARTY NUMBER (FOR FAULT AND VICTIM REFERENCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COL 2 - PARTY TYPE</td>
</tr>
<tr>
<td>DRVR - DRIVER (INCLUDES HIT AND RUN)</td>
</tr>
<tr>
<td>PED - PEDESTRIAN</td>
</tr>
<tr>
<td>PRKD - PARKED VEHICLE</td>
</tr>
<tr>
<td>BICY - BICYCLIST</td>
</tr>
<tr>
<td>OTHR - OTHER</td>
</tr>
<tr>
<td>COL 3 - PARTY EXTENT OF INJURY</td>
</tr>
<tr>
<td>K - KILLED (DIED WITHIN 30 DAYS)</td>
</tr>
<tr>
<td>S - SEVERE INJURY</td>
</tr>
<tr>
<td>V - VISIBLE INJURY</td>
</tr>
<tr>
<td>C - COMPLAINT OF PAIN</td>
</tr>
<tr>
<td>COL 4 - PARTY AGE AND SEX</td>
</tr>
<tr>
<td>PARTY SOBRIETY-DRUG-PHYSICAL (SDP)</td>
</tr>
<tr>
<td>COL 5 - SDP1 REFERS TO ALCOHOL</td>
</tr>
<tr>
<td>COL 6 - SDP2 REFERS TO DRUG ABUSE OR PHYSICAL IMPAIRMENT</td>
</tr>
<tr>
<td>HNBD - HAD NOT BEEN DRINKING</td>
</tr>
<tr>
<td>HBDI - HAD BEEN DRINKING--UNDER INFLUENCE</td>
</tr>
<tr>
<td>HBDN - HAD BEEN DRINKING--NOT UNDER INFLUENCE</td>
</tr>
<tr>
<td>HBDU - HAD BEEN DRINKING--IMPAIRMENT UNKNOWN</td>
</tr>
<tr>
<td>DRUG - UNDER DRUG INFLUENCE</td>
</tr>
<tr>
<td>PHYS - PHYSICAL IMPAIRMENT</td>
</tr>
<tr>
<td>IMPI - IMPAIRMENT (UNKNOWN)</td>
</tr>
<tr>
<td>FATG - FATIGUED OR SLEEPY</td>
</tr>
<tr>
<td>COL 7 - MOVEMENT PRECEDING COLLISION</td>
</tr>
<tr>
<td>COL 8 - DIR - DIRECTION OF INVOLVED PARTY TRAVEL</td>
</tr>
<tr>
<td>COL 9 - STATEWIDE - STATEWIDE VEHICLE TYPE</td>
</tr>
<tr>
<td>COL 10</td>
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<td>50</td>
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<tr>
<td>51</td>
</tr>
<tr>
<td>52</td>
</tr>
<tr>
<td>INVOLVED PARTY DATA (CONT.)</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>53 - FIFTH WHEEL TRAVEL TRAILER</td>
</tr>
<tr>
<td>54 - CONTAINER CHASSIS</td>
</tr>
<tr>
<td>55 - TWO-AXLE TOW TRUCK</td>
</tr>
<tr>
<td>56 - THREE-AXLE TOW TRUCK</td>
</tr>
<tr>
<td>57 - SCHOOL PUPIL ACTIVITY BUS I</td>
</tr>
<tr>
<td>58 - SCHOOL PUPIL ACTIVITY BUS II</td>
</tr>
<tr>
<td>59 - &quot;YOUTH&quot; BUS</td>
</tr>
<tr>
<td>71 - PASSENGER CAR-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>72 - PICKUP OR PANEL-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>73 - PICKUP AND CAMPER-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>75 - TRUCK TRACTOR-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>76 - TWO-AXLE TRUCK-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>77 - THREE OR MORE AXLE TRUCK-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>78 - TWO-AXLE TANK TRUCK-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>79 - THREE-AXLE TANK TRUCK-HAZARDOUS MATERIALS ONLY</td>
</tr>
<tr>
<td>81 - PASSENGER CAR-HAZ WASTE OR COMBO HAZ WASTE &amp; MATERIALS</td>
</tr>
<tr>
<td>82 - PICKUP OR PANEL-HAZ WASTE OR COMBO HAZ WASTE &amp; MATERIALS</td>
</tr>
<tr>
<td>83 - PICKUP AND CAMPER-HAZ WASTE OR COMBO HAZ WASTE &amp; MATERIALS</td>
</tr>
<tr>
<td>85 - TRUCK TRACTOR-HAZ WASTE OR COMBO HAZ WASTE &amp; MATERIALS</td>
</tr>
<tr>
<td>86 - TWO-AXLE TRUCK-HAZ WASTE OR COMBO HAZ WASTE &amp; MATERIALS</td>
</tr>
<tr>
<td>87 - THREE OR MORE AXLE TRUCK-HAZ WASTE OR COMBO HAZ WASTE &amp; MAT.</td>
</tr>
<tr>
<td>89 - TWO-AXLE TANK TRUCK-HAZ WASTE OR COMBO HAZ WASTE &amp; MATERIALS</td>
</tr>
<tr>
<td>91 - THREE-AXLE TANK TRUCK-HAZ WASTE OR COMBO HAZ WASTE &amp; MAT.</td>
</tr>
<tr>
<td>95 - MISC NON-MOTORIZED VEHICLE</td>
</tr>
<tr>
<td>96 - MISC MOTORIZED VEHICLE</td>
</tr>
<tr>
<td>98 - EMERGENCY VEHICLE ON EMERGENCY RUN OR IN PURSUIT OF VIOLATOR</td>
</tr>
<tr>
<td>99 - HIT AND RUN, UNKNOWN</td>
</tr>
</tbody>
</table>

**COL 11 - VEHICLE MAKE AND YEAR**

**COL 12 - SP INFO - SPECIAL INFORMATION**

**HAZ - HAZARDOUS MATERIALS INVOLVED**

**FIR - FIRE INVOLVED**

**TIR - TIRE DEFECT/FAILURE**
APPENDIX N

HMMH MEMORANDUM

AIRCRAFT NOISE EXPOSURE (AGRICULTURAL AIRCRAFT)
1. **INTRODUCTION AND SUMMARY OF RESULTS**

This technical memorandum summarizes the results of an analysis of aircraft noise exposure in the vicinity of Yolo County Airport in Woodland, California. The Airport is bounded by Aviation Avenue on the east and south, County Road 95 on the west, and County Road 29 on the north (see Figure 1). The objective of the analysis was to quantify the contribution of crop-dusting aircraft to the noise environment near the airport, in response to public comments on the Airport Master Plan and Draft Environmental Impact Report.

The noise analysis was based on information obtained during on-site and telephone discussions with the primary crop duster operator at the Airport, Mr. Ralph Holsclaw, of Growers Air Service. Community Noise Equivalent Level (CNEL) contours were developed using the information provided by Mr. Holsclaw to modify the Integrated Noise Model Version 5.1 input files developed by your firm for the Airport Master Plan.

The resulting 1998 65 dB CNEL contour for all aircraft operations at the Airport is shown in Figure 2. The results indicate that the 1998 65 dB CNEL contour falls primarily within the airport boundaries, except to the west near the runway ends where it extends across County Road 95 as follows:

- On the north, just to the west of the Runway 16 landing threshold, the 65 dB CNEL contour extends approximately 100 feet west of County Road 95.
- On the south, just to the west of the Runway 34 landing threshold, the 65 dB CNEL contour extends approximately 50 feet west of County Road 95.

There are no residences located within the 1998 65 dB aircraft noise contour.

The 2015 65 dB CNEL contour is depicted in Figure 3. This contour is slightly larger due to an increase in aircraft operations at the airport. There are three (3) residences within the 2015 65 dB CNEL contour.

The details of the aircraft noise analysis are provided below. Section 2 describes the crop duster aircraft operations at Yolo County Airport. Section 3 describes the aircraft noise modeling effort. Section 4 discusses the differences between the aircraft noise contours contained in this memorandum and those developed for the Airport Master Plan.
Figure 1.
Yolo County Airport Environs

Legend:
- Buildings

Scale: 1/2" = 28,000

Produced by the Yolo County Planning & Public Works Department - 4/28/88
Figure 2.
1998 Aircraft CNEL Contour at Yolo County Airport

CNEL Contour

Buildings

Scale 1/4 Mile
1: 28,000

Produced by the Yolo County Planning & Public Works Department - 01/39
Figure 3.
2015 Aircraft CNEL Contour at Yolo County Airport
2. CROP DUSTER AIRCRAFT OPERATIONS AT YOLO COUNTY AIRPORT

Growers Air Service crop dusters account for approximately 95 percent of the crop dusting operations at Yolo County Airport. The other two firms that use the Airport, Tolle's Flying Service (4%) and Joslin's Air Service (1%), have similar aircraft types and are operated in a similar manner. Thus, Growers Air Service operation is very representative of the crop dusting activity at the Airport.

Aircraft Types

Growers Air Service currently operates five (5) crop dusting aircraft from Yolo County Airport:

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Type</th>
<th>Engine</th>
<th>Shaft Horse Power</th>
<th>Rate-of-Climb (ft./min.)</th>
<th>Gross Take-off Weight (lbs.)</th>
<th>Gross Landing Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Air Tractor (turbine)</td>
<td>PT6-34AG</td>
<td>750</td>
<td>500</td>
<td>8,000</td>
<td>4,500</td>
</tr>
<tr>
<td>1</td>
<td>AgCat (turbine)</td>
<td>PT6-20</td>
<td>550</td>
<td>500</td>
<td>5,500</td>
<td>2,700</td>
</tr>
<tr>
<td>1</td>
<td>AgCat (piston)</td>
<td>PW R1340</td>
<td>600</td>
<td>200</td>
<td>5,500</td>
<td>3,500</td>
</tr>
</tbody>
</table>

Each aircraft accounts for an equal portion (20%) of the Growers Air Service operations at Yolo County Airport. Tolle's Air Service operates an AgCat turbine aircraft and Joslin's Air Service operates a Cessna piston aircraft.

Future (2015) operations are likely to be flown entirely by turbine Air Tractor-type aircraft.

Time of Day

Currently, about 95 percent of the operations are conducted during the daytime (7:00 AM - 6:59 PM). The remaining five percent occur in the nighttime time period (10:00 PM - 6:59 AM) with all of these occurring in the early morning (5:00 - 6:00 AM) hours. There are no evening (7:00 PM - 9:59 PM) operations.

Future (2015) operations will follow the same time of day patterns.

Number of Operations

Current crop duster flight operations are concentrated in the months of January, February, and March. Flight operations may occur 30 out of the 90 days in this period. During this period, Growers Air Service aircraft will fly approximately 160 operations (80 takeoffs and 80 landings) per day. Flying operations are slightly less in April and May with operations occurring on 20 out of the 60 days in this period. During this period Growers Air Service aircraft will fly...
approximately 60 operations (30 takeoffs and 30 landings) per day. During June through August, Growers Air Service aircraft fly about 15 days with up to 20 operations per day (10 takeoffs and 10 landings). September through December is the least busy period with about 20 days of flying at 30 operations per day. This pattern of annual operations is detailed in Table 2 below. Table 3 presents Growers Air Service operations by time of day.

Table 2 - Growers Air Service Aircraft Operations at Yolo County Airport

<table>
<thead>
<tr>
<th>Period</th>
<th>Days of Flying</th>
<th>Operations per Day</th>
<th>Total Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. - Mar.</td>
<td>30</td>
<td>160</td>
<td>4800</td>
</tr>
<tr>
<td>May - Jun.</td>
<td>20</td>
<td>60</td>
<td>1200</td>
</tr>
<tr>
<td>Jul. - Aug.</td>
<td>15</td>
<td>20</td>
<td>300</td>
</tr>
<tr>
<td>Sep. - Dec.</td>
<td>20</td>
<td>30</td>
<td>600</td>
</tr>
<tr>
<td>Total Annual Operations</td>
<td></td>
<td></td>
<td>6900</td>
</tr>
</tbody>
</table>

Table 3 - Growers Air Service Average Daily Operations by Time of Day

<table>
<thead>
<tr>
<th>Aircraft Types</th>
<th>Percentage of Ops.</th>
<th>Day (95%)</th>
<th>Eve</th>
<th>Night (5%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Tractors</td>
<td>60%</td>
<td>10.78</td>
<td>0.00</td>
<td>0.57</td>
<td>11.34</td>
</tr>
<tr>
<td>AgCat Turbine</td>
<td>20%</td>
<td>3.59</td>
<td>0.00</td>
<td>0.19</td>
<td>3.78</td>
</tr>
<tr>
<td>AgCat Piston</td>
<td>20%</td>
<td>3.59</td>
<td>0.00</td>
<td>0.19</td>
<td>3.78</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>17.96</td>
<td>0.00</td>
<td>0.95</td>
<td>18.90</td>
</tr>
</tbody>
</table>

The two remaining crop duster operators at Yolo County Airport account for five (5) percent of the crop dusting operations. Tolle's Flying Service, which accounts for approximately four (4) percent of the the crop dusting operations at the Airport, did not return our telephone calls requesting information about their operations. Joslin's Air Service, which accounts for approximately one (1) percent of the crop dusting operations at the Airport, returned our phone calls, but refused to provide any information about their operation unless we paid them $150 per hour. Since their operation is such a small percentage of the crop duster operations, and we were not authorized to pay for their time, we did not interview Joslin's Air Service. Therefore, we used the information provided by Growers Air Service, and Tolle's and Joslin's aircraft fleets, which were provided by the County, to estimate their operations as indicated in Tables 4 and 5 below.
Table 4 - Tolle's Flying Service Average Daily Operations by Time of Day

<table>
<thead>
<tr>
<th>Aircraft Types</th>
<th>Percentage of Ops</th>
<th>Day (95%)</th>
<th>Eve</th>
<th>Night (5%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AgCat Turbine</td>
<td>100%</td>
<td>0.76</td>
<td>0.00</td>
<td>0.04</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Table 5 - Joslin's Air Service Average Daily Operations by Time of Day

<table>
<thead>
<tr>
<th>Aircraft Types</th>
<th>Percentage of Ops</th>
<th>Day (95%)</th>
<th>Eve</th>
<th>Night (5%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cessna Piston (Model as AgCat Piston)</td>
<td>100%</td>
<td>0.19</td>
<td>0.00</td>
<td>0.01</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Tables 6 and 7 provide the total average daily crop duster operations by aircraft type and time of day for 1998 and 2015, respectively. Mr. Holscaw estimates that the daily operations will remain about the same, however, he expects that the turbine Air Tractor will be the primary crop duster aircraft in the future. Thus, all future operations were modeled using the turbine Air Tractor.

Table 6 - Total Average Daily Crop Duster Operations by Time of Day- 1998

<table>
<thead>
<tr>
<th>Aircraft Types</th>
<th>Percentage of Ops</th>
<th>Day (95%)</th>
<th>Eve</th>
<th>Night (5%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Tractors</td>
<td>57%</td>
<td>10.77</td>
<td>0.00</td>
<td>0.57</td>
<td>11.34</td>
</tr>
<tr>
<td>AgCat Turbine</td>
<td>23%</td>
<td>4.35</td>
<td>0.00</td>
<td>0.23</td>
<td>4.58</td>
</tr>
<tr>
<td>AgCat Piston</td>
<td>20%</td>
<td>3.78</td>
<td>0.00</td>
<td>0.20</td>
<td>3.98</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>18.90</td>
<td>0.00</td>
<td>1.00</td>
<td>19.90</td>
</tr>
</tbody>
</table>

Table 7 - Total Average Daily Crop Duster Operations by Time of Day- 2015

<table>
<thead>
<tr>
<th>Aircraft Types</th>
<th>Percentage of Ops</th>
<th>Day (95%)</th>
<th>Eve</th>
<th>Night (5%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Tractors</td>
<td>100%</td>
<td>18.90</td>
<td>0.00</td>
<td>1.00</td>
<td>19.90</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>18.90</td>
<td>0.00</td>
<td>1.00</td>
<td>19.90</td>
</tr>
</tbody>
</table>
Flight Paths

Mr. Holscaw depicted the crop duster aircraft flight paths on a map of the airport area (see Figure 4). For departures on Runway 34, about 70 percent of the crop duster aircraft turn left after passing County Road 29, while the remaining 30 percent turn right. All Runway 16 departures turn right, as depicted in Figure 4, to avoid homes along the extended runway centerline. Approximately 60 percent of the crop duster arrivals fly in the traffic pattern, while the remaining 40 percent of the arrivals fly straight-in approaches.

Operating Altitudes

After departure, crop duster aircraft level off at 250 feet Above Ground Level (AGL) and proceed to their project sites. Upon returning to Yolo County Airport, the crop dusters will either fly a straight-in approach or use the established traffic pattern. Crop duster pilots will use the traffic pattern when the airport activity is high, which occurs during 60 percent of their landings. Straight-in approaches occur the remaining 40 percent of the time. The pattern altitude is 1,100 feet Mean Sea Level (MSL). Straight-in approaches are flown using a "standard" 3 degree approach angle.

Operating Speeds

The speeds for each mode of operation for each aircraft type are listed in the Table 8 below.

<table>
<thead>
<tr>
<th>Aircraft Types</th>
<th>Crop Duster Operating Speeds in Knots</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operating Mode</td>
</tr>
<tr>
<td></td>
<td>Climb Out</td>
</tr>
<tr>
<td>Turbine Air Tractor</td>
<td>110</td>
</tr>
<tr>
<td>Turbine AgCat</td>
<td>95</td>
</tr>
<tr>
<td>Piston AgCat</td>
<td>80</td>
</tr>
</tbody>
</table>

3. AIRCRAFT NOISE MODELING EFFORT

The data described in Section 2 were used to develop the assumptions for modeling the crop duster aircraft operations using the FAA-approved Integrated Noise Model (INM) Version 5.1.

All of the input assumptions used to develop the Master Plan aircraft noise contours were used to prepare the HMMH-developed aircraft noise contours in this technical memorandum with the following exceptions:
Figure 4. Crop Duster Aircraft Departure Flight Tracks at Yolo County Airport

Crop Duster Departure Flight Tracks
Buildings

Scale: 1/4 miles
1: 28,000

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Xerox Corporation

Produced by the Yolo County Planning & Public Works Department - 4/27/58


Aircraft Types - New INM aircraft types were developed to represent the crop duster aircraft. The standard approach to making these substitutions is to select INM aircraft types from the noise model data base that have similar engine types and horse power ratings. When the most similar engine type is on a twin-engine aircraft, 3 dB are subtracted to model a single-engine aircraft. Further adjustments can be made for differences in horsepower and number of cylinders. Table 9 provides the substitutions and noise curve adjustments used in modeling the crop dusters.

Table 9 - INM Aircraft Substitutions

<table>
<thead>
<tr>
<th>Actual Type</th>
<th>Actual Engine Type &amp; Number</th>
<th>INM Substitute</th>
<th>INM Engine</th>
<th>Noise Curve Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Tractor (turbine)</td>
<td>PT6-34AG (Single)</td>
<td>DHC6</td>
<td>PT6A-27 (Twin)</td>
<td>Subtract 3 dB for single engine. Add 3 dB for greater horsepower</td>
</tr>
<tr>
<td>AgCat (turbine)</td>
<td>PT6-20 (Single)</td>
<td>DHC6</td>
<td>PT6A-27 (Twin)</td>
<td>Subtract 3 dB for single engine.</td>
</tr>
<tr>
<td>AgCat (piston)</td>
<td>PW R1340 (Single/9 Cylinders)</td>
<td>DC3</td>
<td>PW R2800 (Twin/12 Cylinders)</td>
<td>Subtract 3 dB for single engine. Subtract 1.9 dB for 9 vs. 12 Cylinders.</td>
</tr>
</tbody>
</table>

We believe the substitutions are conservative. That is, the modeled noise levels are likely to be greater than actual noise levels experienced in the airport environs.

Flight Tracks - New flight tracks were used to model the crop duster departure paths (see Figure 4).

Operations - The number of crop duster operations identified in Tables 6 and 7 above were subtracted from the GASEPV operations in “Table 3-2: Airport Operations -- Enhanced Case” so that the total level of operations remained the same.

Departure Profiles - New departure profiles were developed to reflect the crop duster aircraft speeds, rates of climb, and operating altitudes.

Temperature - The temperature in the INM input file was changed from 97°F to 75°F to be more reflective of the annual average temperature.
4. COMPARISON TO THE MASTER PLAN NOISE CONTOURS

The 65 dB CNEL aircraft contours developed by HMMH are slightly larger than the Master Plan
65 dB CNEL contours because (1) the crop duster aircraft are louder than the GASEPV aircraft they
replaced in the INM input file, (2) the crop duster aircraft depart the area at a lower altitude than
other aircraft using the airport, and (3) there were more crop dusting operations at night than were
modeled for the original Master Plan contours.

The 1996 65 dB CNEL aircraft noise contour in the Master Plan contained no residences. The 1998
65 dB CNEL aircraft noise contour developed by HMMH continues to have no residences within
it. The 2015 65 dB CNEL aircraft noise contour in the Master Plan contained one residence. The
2015 65 db CNEL aircraft noise contour developed by HMMH encompasses two (2) additional
residences (for a total of three within the 2015 65 dB CNEL) just to the west of County Road 95
adjacent to the Runway 34 landing threshold.
APPENDIX O

HMMH MEMORANDUM

FIRING RANGE NOISE EXPOSURE
TECHNICAL MEMORANDUM

To: Mike McClintock
P&D Consultants, Inc.

From: David A. Towers, P.E. (CA # 18912)

Date: April 20, 1998

Subject: Firing Range Noise Exposure in the Vicinity of Yolo County Airport

Reference: HMMH Job No. 295630

1. INTRODUCTION AND SUMMARY OF RESULTS

This technical memorandum summarizes the results of an analysis of firing range noise exposure in the vicinity of Yolo County Airport in Woodland, California. The firing ranges are on the grounds of the Yolo Sportsmen's Association (YSA) facility, located at the northeast corner of the airport (see Figure 1). The objective of the analysis was to quantify the contribution of the on-airport firing range noise with respect to the noise environment near the airport, in response to public comments on the Airport Master Plan and Draft Environmental Impact Report.

The noise analysis was based on information obtained during on-site and telephone discussions with the firing range operator, and on noise data and assessment methods available in the literature. Community Noise Equivalent Level (CNEL) calculations for the firing ranges were based on an average Sound Exposure Level (SEL) per round fired for typical shooting activities, and on rough estimates of the yearly average number of rounds fired during different periods of the day. The calculated levels were adjusted to account for distance, atmospheric effects and shielding. Penalties were applied to account for heightened annoyance response due to the highly impulsive character of the noise and for shooting activity during the evening (7 pm to 10 pm).

The resulting "normalized" 65 dB CNEL contour for the firing ranges is illustrated in Figure 1, along with the 65 dB CNEL aircraft noise contour for the airport. The results indicate that the normalized 65 dB CNEL contour falls primarily within the airport boundaries, except to the east where it extends about 500 feet east of the airport boundary. There are no residences located within the 65 dB firing range contour.

With regard to cumulative effects, Figure 1 shows that the firing range and airport noise contours overlap primarily within the airport boundaries. Thus, the cumulative effect of these two sources on the nearest residences appears to be minimal.

The details of the firing range noise analysis are provided below. Section 2 describes the physical and operational characteristics of the YSA facility, including the assumptions made with regard to firing range use. Section 3 describes the noise calculation methods, and appropriate references are included in Section 4.
Figure 1.

Firing Range and 1998 Aircraft CNEL Contours at Yolo County Airport
2. YSA FACILITY DESCRIPTION AND FIRING RANGE OPERATIONS

The Yolo Sportsmen's Association operates a private recreational facility at the northeast corner of the Yolo County Airport grounds. As shown in Figure 2, the facility includes three ranges (25, 50 and 100 yards) for rifle and pistol use, a skeet field with trap ranges and a specialty range. Except for the skeet field and trap ranges, all of the ranges are surrounded by protective earth berms.

The YSA facility is open between 9 am and 5 pm during the winter (when standard time is in effect) and between 9 am and 8 pm during the summer (when daylight savings time (DST) is in effect. The ranges are open to all members Wednesday through Sunday. Only law enforcement agencies use the ranges on Monday and Tuesdays, and until 10 pm, on occasion, during DST.

In general, approximately 20 to 100 people use the facility per day. The summer months are busiest, with most of the activity in the mornings and evenings. The rifle and pistol ranges tend to have the greatest use, while the specialty range is used the least (typically three days per month).

Based on the above, it is roughly estimated that 60 people use the firing ranges per day on an annual average basis. Of these, it is estimated that an average of 50 people use the ranges during the daytime operating hours of the facility (between 9 am and 7 pm) and that and average of 10 people use the ranges during the evening (between 7 pm and 10 pm).

Use of the firing ranges is highly variable, and there are no records available to determine the average number of rounds fired by facility users. Because this information is essential for projecting firing range noise exposure, a rough estimate was made based on data obtained as part of an environmental impact assessment for a new police training academy in Los Angeles, CA [1]. As part of the noise study for this assessment, records were examined for use of the firing ranges at the existing police academy. These records indicated that, on average, each user fired approximately 30 rounds while at the facility.

Assuming that each user of the YSA facility fires approximately 30 rounds while at the ranges, it is roughly estimated that 1,800 rounds of ammunition are fired at the facility per day on an annual average basis. This is broken down into 1,500 rounds fired during the daytime hours and 300 rounds fired during the evening hours. These rough estimates serve as the basis for the calculation of firing range CNEL as described in Section 3 below.
Figure 2. Site Plan of YSA Facility at Yolo County Airport
3. **Firing Range Noise Exposure Calculations**

Community noise exposure from the firing ranges, in terms of annual average CNEL, depends on the sound energy (SEL) per round and the number of rounds fired on an annual average basis during the daytime, evening and nighttime hours as follows:

\[
\text{CNEL} = \text{SEL}_{rd} + 10 \log_{10} (N_d + 3N_e + 10N_n) - 49.4 + P - A_s
\]  

(1)

where:
- \(\text{CNEL}\) = Annual Average Community Noise Equivalent Level, dBA
- \(\text{SEL}_{rd}\) = Average Sound Exposure Level per round fired, dBA
- \(N_d\) = annual average number of rounds fired during the daytime (7 am - 7 pm)
- \(N_e\) = annual average number of rounds fired during the evening (7 pm - 10 pm)
- \(N_n\) = annual average number of rounds fired during the nighttime (10 pm - 7 am)
- \(P\) = penalty to account for sounds with special characteristics, dBA
- \(A_s\) = attenuation due to shielding, dBA

For the purpose of this study, \(\text{SEL}_{rd}\) is obtained from the results of the Los Angeles Police Academy environmental study [1], which determined an energy average value of 80 dBA at a distance of 500 feet based on measurements at pistol and shotgun ranges. Based on this reference value, the \(\text{SEL}_{rd}\) at other distances can be estimated as follows:

\[
\text{SEL}_{rd} = 142 - 23 \log_{10} (D)
\]  

(2)

where:
- \(D\) = distance to the acoustic center of the firing ranges, in feet

The distance attenuation factor in the above relationship is derived from measurements performed by the U. S. Army Construction Engineering Research Laboratory (CERL) as part of a firing range noise study [2]. This attenuation factor accounts for geometric spreading of sound as well as some atmospheric and ground absorption. It is also of interest to note that the above equation is within 3 decibels of the prediction equation developed by CERL based on noise measurements for pistols, rifles and machine guns.

Combining equations (1) and (2), the following equation is obtained for CNEL:

\[
\text{CNEL} = 92.6 + 10 \log_{10} (N_d + 3N_e + 10N_n) - 23 \log_{10} (D) + P - A_s
\]  

(3)

For the purpose of this study, the penalty \((P)\) is taken to be 12 dBA, based on American National Standard ANSI S12.9-1996-Part 4 [3]. ANSI recommends this adjustment factor to account for the increased annoyance associated with the "highly impulsive" nature of sound from small-arms gunfire. Including this penalty, and assuming \(N_d, N_e\) and \(N_n\) to be 1500, 300 and 0, respectively (as estimated in Section 2), equation (3) reduces to the following:

\[
\text{CNEL} = 138.4 - 23 \log_{10} (D) - A_s
\]  

(4)
In terms of shielding, it is estimated that on average, the berms in the vicinity of the firing ranges will provide excess attenuation on the order of 5 dBA, except under downwind conditions. Under such conditions, refraction of sound by the wind gradient is likely to degrade the barrier effect. Based on the airport wind rose, Table 1 indicates the percent of the time when downwind sound propagation conditions are expected to exist for areas to the north, south, east and west of the firing ranges. Using these percentages, the average shielding attenuation ($A_s$) has been calculated for each of the four directions. As indicated in Table 1, these values range between 2 and 4 dBA, depending on direction, reflecting the degradation in shielding during downwind sound propagation conditions.

**Table 1. Estimated Shielding of Firing Range Noise**

<table>
<thead>
<tr>
<th>Direction with respect to Firing Range</th>
<th>Percent of Time with Downwind Sound Propagation Conditions</th>
<th>Estimated Average Shielding, $A_s$ (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>46 %</td>
<td>2.0</td>
</tr>
<tr>
<td>South</td>
<td>21 %</td>
<td>3.4</td>
</tr>
<tr>
<td>East</td>
<td>13 %</td>
<td>3.9</td>
</tr>
<tr>
<td>West</td>
<td>10 %</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Incorporating the above shielding factors into equation (4), the CNEL in each of the four directions with respect to the firing ranges can be calculated at any given distance. By re-arranging the equation, the distance to any given CNEL contour can also be calculated. The equations for these calculations are as follows:

$$\text{CNEL} = K - 23 \log_{10} (D)$$  
$$D = \text{antilog} \left[ \frac{(K-\text{CNEL})}{23} \right]$$

where: $K = \text{Constant, based on direction}$

Values of the constant, $K$, are provided in Table 2 for each direction, along with the estimated distances to the 65 dB contour. As shown in this table, the 65 dB contour is estimated to extend out to between 1,000 feet and 1,300 feet from the acoustic center of the firing ranges.

For the purpose of developing firing range noise contour, the acoustic center of the ranges was taken to be about 500 feet from the south and east boundaries of the YSA facility. The resulting 65 dB contour is illustrated in Figure 1, along with the 65 dB CNEL aircraft noise contour for the airport. As shown in the figure, the firing range and airport noise contours overlap primarily within the airport boundaries, so that their cumulative effect on the nearest residences is minimal.
Table 2. Firing Range Directional Constants and Estimated Noise Contour Distances

<table>
<thead>
<tr>
<th>Direction with respect to Firing Range</th>
<th>Directional Constant (K)</th>
<th>Distance to CNEL Contour (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>136.4</td>
<td>1,270</td>
</tr>
<tr>
<td>South</td>
<td>135.0</td>
<td>1,110</td>
</tr>
<tr>
<td>East</td>
<td>134.5</td>
<td>1,050</td>
</tr>
<tr>
<td>West</td>
<td>134.2</td>
<td>1,020</td>
</tr>
</tbody>
</table>

Finally, it should be noted that the firing range noise contour shown in Figure 1 is a "normalized" contour. Due to the penalty applied in the calculation, these values are much higher than would be measured in the field. They are presented as a means to compare firing range noise with noise from aircraft and other sources on the basis of annoyance. It should also be noted that due to the lack of accurate operational data, the firing range noise exposure estimates are highly approximate. However, due to the conservative assumptions made in the analysis, it is likely that the estimates represent an upper bound for firing range noise exposure in the vicinity of Yolo County Airport.

4. REFERENCES


APPENDIX P

CUNNINGHAM ENGINEERS REPORT
YOLO COUNTY AIRPORT MASTER PLAN
DRAINAGE EVALUATION

SUPPLEMENT TO ENVIRONMENTAL ASSESSMENT/
ENVIRONMENTAL IMPACT REPORT

APRIL 27, 1998

Prepared by
Cunningham Engineering Company
123 C Street
Davis, CA 95616
(530) 758-2026

Charles W. Cunningham, R.C.E. 30339
Kyle C. West, R.C.E. 54723
INTRODUCTION

1.1 CEC Assignment

Our objective was to assist in the Yolo County Airport Master Plan EIR process by providing a drainage evaluation of the Airport. This letter summarizes the evaluation and includes: a description of the existing Airport drainage facilities and conditions; a description of area wide drainage conditions; design considerations to accommodate drainage issues resulting from proposed Airport development; and recommended performance standards to mitigate increased runoff resulting from development. We have also provided expectations for subsequent detailed design studies.

EXISTING CONDITIONS

2.1 Drainage Facilities and Conditions

The Yolo County Airport covers an area of approximately 498 acres, which currently includes 52.8 acres of impermeable surface areas (roads, parking lots, runways, taxiways, and buildings) and 445.2 acres of are permeable surface areas (farmland and undeveloped grasslands). Based on existing topographic maps, input from local residents familiar with typical winter runoff patterns, and observations made during site visits, it appears that the Airport property can be separated into three distinct drainage shed areas (see Figure 1).

Shed Area 1 (48 acres) is located on the north end of the Airport, immediately north of the Pleasant Prairie Canal. Runoff from this area appears to flow to the north and northeast towards the drainage ditch located on the south side of County Road 29 and does not enter Airport Slough on the south side of the Airport.

Shed Area 2 (28 acres) is located at the southwest corner of the Airport property. Runoff from this shed area appears to flow to the south and southwest into drainage ditches on the north side of Aviation Avenue and east of County Road 95. These ditches drain to the south towards Airport Slough.

Shed Area 3 (422 acres) makes up the remaining portion of the Airport property. The runoff from this area drains into Airport Slough at the southeast corner of the Airport. The western portion of the Airport appears to drain towards the west, into a north-draining ditch on the east side of County Road 95. The runoff flows back onto the Airport north of the Fire Department facilities and is then conveyed to the east through a series of earth and grass-lined channels, an underground pipe and ultimately into a low-lying area (floodwater/buffer area) on the east side of the Airport. Runoff from the remaining portion of Shed Area 3 flows east through a series of underground pipes and channels and/or overland into the floodwater/buffer area. The majority of runoff that enters the detention basin flows south through a small channel located along the east

---

1 Memo from Mike McClintock to Keith Ott, dated February 18, 1998
boundary of the Airport. The runoff then flows off-site at the southeast corner of the Airport, into Airport Slough.

For Shed Area 3, the estimated peak flow (Q) of storm water runoff for a 100-year, 24-hour storm, based on current development conditions (52.8 developed acres and 445.2 undeveloped acres) is 156 cubic feet per second (cfs). The estimated volume (V) of storm water runoff for the same storm and development conditions is 120 acre-feet. The Modified Rational Method was used to approximate the runoff rate, while published rainfall intensity information was used to calculate the runoff volume.

2.2 Area Wide Drainage Conditions

The most recent Flood Insurance Study produced by the Federal Emergency Management Agency (FEMA) (preliminary study dated August 29, 1997) identified the 100-year flood zone on Airport property as shown on Figure 1. Base flood elevations of approximately 87.5' were estimated for the Airport property. The source of floodwaters that occupy this flood zone is not limited to runoff from the Airport, but includes floodwaters that back into the on-site channel and floodwater/buffer area, on the east side of the Airport, from Airport Slough. This inundated area is referred to below as part of the Airport Slough Floodplain.

Indeed, during significant rainfall events, there is widespread, shallow flooding in the West Plainfield area, as waters emanating in the foothills west of Winters overwhelm the various downstream sloughs. Often, waters from one slough will overflow into nearby watercourses. Such is the case with Airport and Dry Sloughs.

It is also worthwhile to note that the 498 acres of the Yolo County Airport constitutes less than 1.4% of the 47.3 square mile drainage basin at the confluence of Dry and Airport Sloughs. In reality, runoff from the Airport in either its current or buildout conditions contributes relatively little to the areawide drainage regime.

DESIGN CONSIDERATIONS

3.1 New Building Construction

All new buildings at the Airport should be constructed with the finish floors at least one foot above the predicted 100-year flood elevation. If a building is constructed within the boundaries of the new flood insurance rate map (F.I.R.M.), a FEMA Letter of Map Revision, based on fill, must be processed.

3.2 Existing Airport Slough Floodplain

As noted above, a portion of the Airport property is located within the Airport Slough Floodplain. We estimate the volume of floodwaters temporarily stored on Airport
property to be approximately 88 acre-feet at the peak of the 100-year event. As the Airport develops, this volume of storage should be maintained.

A portion of the Master Plan development area along the east side of the property appears to contain a small portion of the floodplain volume, (approximately 15 acre-feet). If this area is filled and buildings are constructed in this area, the corresponding volume of displaced floodwater should be provided by slightly excavating the designated floodwater/buffer area.

### 3.3 Increased Rate of Runoff due to Additional Development

For Shed Area 3, the estimated peak flow (Q) of storm water runoff for a 100-year, 24-hour storm, based on proposed development conditions (181 developed and 241 undeveloped acres), is 204 cfs. The estimated volume (V) of storm water runoff for the same storm and development conditions is 145 acre-feet. So, approximately 25 acre-feet of runoff can be attributed to conversion of currently undeveloped portions of the property to Master Plan designated uses.

In order to mitigate the increased rate of run-off due to Airport build-out, stormwater detention facilities should be incorporated into site planning for new development at the Airport. These facilities should be designed to limit the future rate of run-off into Airport Slough to the current rate. Detention facilities operate by temporarily storing the peaks of stormwater runoff, with discharge occurring at a lower rate over a longer period of time. This is a commonly used stormwater management strategy in Davis, Woodland and many other Central Valley communities.

These detention facilities can consist of vegetated basins, slightly depressed parking lots and/or open channels. Small pump stations may be necessary to fully drain the detention facilities. They can be placed at one or more locations on the Airport property in response to phased development.

### 3.4 Detention Basin Discharge Regime

As noted above, the Yolo County Airport is part of a much larger drainage system. For many storm events, waters emanating in the West Plainfield area are drained off to the east prior to the floodwater contributions from the West County. It is this larger, delayed volume of floodwater that typically produces the slough overflows and widespread shallow flooding. During a 100 year storm event, this subsequent, areawide inundation could last for 24 hours or longer.

During such conditions, Airport Slough will back up onto Airport property, and the ability of the above described detention basins to discharge to the slough will be reduced. It may, therefore, be prudent to anticipate a subsequent storm event occurring while area sloughs and fields are inundated. A 2-year, 12-hour storm would produce approximately 15 acre-feet of stormwater from the new development area (128 acres of non-permeable surface area). Because the Airport detention basins should not be full to capacity at the
time of this subsequent storm event, the 15 acre-feet need not be additive to the previously identified 25 acre-feet.

RECOMMENDED PERFORMANCE STANDARDS

The discussion in the Design Considerations section suggests these four performance standards/mitigations:

1. Construct new building floors at least one foot above the 100-year flood elevation.
2. Process a FEMA Letter of Map Revision, based on fill, for any buildings constructed within the boundaries of the new F.I.R.M.
3. Maintain the current volume of floodplain storage on the Airport property.
4. Provide stormwater detention facilities to reduce future peak runoff rates to current levels.

Implementation of these standards will involve the preparation of detailed drainage design reports for new development areas, to determine actual runoff rates and volumes and to size detention facilities. New drainage components (pipelines, ditches, pumps) will be needed to convey stormwaters from the developing areas. In addition, some improvements to existing swales and culverts are appropriate to alleviate minor drainage problems near some existing buildings and parking areas.
APPENDIX Q

AIRPORT EMERGENCY PLANNING
EMERGENCY PLANNING
APPENDIX

THIS SECTION PROVIDES GUIDANCE IN PREPARING FOR AIRPORT EMERGENCIES. ADDITIONAL READING, WHICH MAY BE HELPFUL IN DEVELOPING AN EMERGENCY PLAN OR IN ACQUIRING APPROPRIATE EQUIPMENT OR MATERIALS, INCLUDES ADVISORY CIRCULARS IN THE 150 SERIES AND ARE PREFIXED "AC 150." THESE ARE:

AC 150/5200-12A Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident.

AC 150/5200-15D Announcing the Availability of International Fire Service Training Association's Manual 206, Aircraft Fire Protection and Rescue Procedures. This manual was developed to provide information for both airport and structural fire department officers to accomplish the various tasks involved in aircraft firefighting and rescue. It is designed to assist fire protection organizations in responding to airfield emergencies with conventional and/or specialized aircraft firefighting equipment. Copies of Manual 206 can be purchased for $11.00 per copy from the following address:

INTERNATIONAL FIRE SERVICE TRAINING ASSOCIATION
Fire Protection Publications
Oklahoma State University
Stillwater, Oklahoma 74078

AC 150/5200-21 Announcing the availability of U.S. Air Force Technical Order (T.O.) 00-105E-9 Aircraft Emergency. This document describes procedures and general information on aircraft firefighting and rescue procedures relating to military aircraft and civilian air carrier aircraft used by the military.

AC 150/5200-27 Announcing the availability of the National Fire Protection Association's Standard for Professional Qualifications for Airport Fire Fighters. This document details the training and experience requirements for professional fire fighters.

AC 150/5210-2 Airport Emergency Medical Facilities and Services.

AC 150 5210-5 Painting, Marking and Lighting of Vehicles Used on the Airport.

AC 150/5210-6 Aircraft Fire and Rescue Facilities and Extinguishing Agents.
AC 150/5210-7 Aircraft Fire and Rescue Communications.

AC 150/5210-12 Fire and Rescue Service for Certificated Airports. This refers to Part 139 Certification requirements. This document could be helpful to airport managers/owners who are expecting more than thirty (30) seating capacity aircraft to operate at their facilities in the future.


AC 150/5210-14 Airport Fire and Rescue Personnel Protective Clothing.

AC 150/5325-5 Aircraft Data. This document can be helpful in determining pavement strength and width requirements and other airport items which are related to the type aircraft using the facility.

National Fire Protection Association (NFPA) materials, specifically: #402, 403, 407, and 424. Each of these documents addresses an airport operation in terms of safety precautions and procedures. #407, for example, identifies safe practices and attitudes associated with fueling operations.

AC 150/5200-13 Removal of Disabled Aircraft.

Additional questions or information may be obtained by calling the General Aviation Airport Safety Program Office at 202.267.8741 or writing AAS-316, Federal Aviation Administration Airports Division, 800 Independence Ave., SW, Washington, D.C. 20591
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Chapter 1

Defining the Airport Emergency. The commonly accepted definition of "emergency" is a "generally unexpected set of circumstances that demands immediate action." Included in the meaning of emergency are the elements of danger and distress. For the purposes of the airport environment, "emergency" refers to an event that occurs on an airport or on adjacent property within the authority and responsibility of the airport management.

Defining the Airport Emergency Plan (AEP). Because the designated management of an airport (whether it be a manager, an FBO on the field, a city, county or municipal authority) is responsible for what happens on the airport, good sense would indicate that the management should be prepared to handle "unexpected" events. Preparation means identifying resources and organizing and managing them into an effective response called the Airport Emergency Plan (AEP).

An AEP is especially important because it provides a framework of response. Some emergencies require one type of action; others require some other type action or different level of action. When individuals know the appropriate and most effective response to a situation, they are then able to be of the most assistance during the critical first fifteen minutes of an emergency situation.

Preparing the Emergency Plan. KEEP IT SIMPLE! Developing an AEP involves

* understanding the airport
* establishing effective communications
* identifying the resources
* providing alternatives
* providing for testing/modification

Understanding the Airport

Generally, personnel on the airport are in an advantageous position to identify important characteristics of the field. They usually are familiar with the layout and operational characteristics, the terrain around the airport, the location of trees and unpaved access roads, conditions that produce squirrely winds, and, sometimes, idiosyncrasies of the airfield that are important during a response to an emergency. Airport layouts or surveys which can be converted to grid maps may be necessary for an airport with a large amount of acreage. Small airports may need only designate "north," "south," "east" and "west" portions.
Page two

In any case, pertinent information about the airport should be gathered in an accessible place and a means (map, layout, etc.) selected for depicting locations on the airport.

Establishing Effective Communications

An effective AEP provides for the most direct means of contacting those who can give assistance during an emergency. This can be accomplished through 911 (a telephone service widely used for emergency notification), a designated telephone number, alarm, or radio. An evaluation of means available generally provides one or more ways in which to notify the proper people, department, or agency.

Knowing what the source of assistance is for your airport is of critical importance.

Identifying Resources.

Airport personnel may be making the initial response to an emergency. Or it may be a transient aircraft pilot and his passengers. In any case, a set of directions or a posted telephone number can save time during the critical early minutes of an emergency. Accessibility of fire extinguishers and other equipment should be evaluated, as well as the availability of volunteer or community firefighters. Strategically located signs can save valuable time. In summary, response to an emergency can be made easier when procedures are established to summon the appropriate assistance. And the sources of assistance should be identified before they are needed. The time to figure out whether it's the fire department or the rescue squad who is called for a shop accident or a medical emergency is now, not when the emergency happens.
Providing Alternatives

Briefly, if plan A fails, there should be a plan B. If the phone is dead, or if firefighters are at another fire, backup is required. If the airport is a larger facility, with a manager or some similar arrangement, it may be necessary to include a chain of command for coordination and cooperation purposes. Each airport has a level of operation which implies certain needs. Balancing the needs with resources and not overloading the AEP with more than is needed are key to its success.

Providing for testing/Modification.

The significant information regarding the efficacy of a Plan come from testing it. The exercise can benefit a number of people on the airport, because the learning that takes place during a drill makes the participants very much aware of resources, time, coordination/cooperation, procedures and deficiencies in any of the above areas. Drills that are conducted on a regular basis enable participants to know strengths and weaknesses of their airport in times of emergencies and to develop ways of overcoming what could become insurmountable obstacles during an actual alert.

Determining the Necessary Level of Preparedness.

Several key factors determine the level of preparedness that is appropriate for an airport.

The most important characteristic of an airport's operation is the size of the largest aircraft using the field. The seating capacity of this aircraft determines the level of casualty-handling preparedness that could be needed.

Traffic density is another factor, with peak hours of operation to be considered, also.

Airport layout is a factor in that it determines the strategy of a response to an emergency.

The environment around an airport can create special situations for emergency planning...large bodies of water, for example, or marshes, open fields, residential developments, mountains and/or woods.
Chapter 2

Introduction.

Planning a strategy for handling emergencies is an opportunity to understand the dynamics of the airport.

If there are businesses located on or near the airport, it may be advantageous to include them in the quest for resources, contacts, and a workable plan. If there is no one but the manager or the FBO on the field, a talk with the local fire chief or the training officer at the fire station is in order. The plan may even evolve as an exercise for students at the local high school where an instructor may be able to incorporate the development of an emergency plan into a social studies class lesson plan or a science class project. Local EAA chapters, CAP, 99s or nearby military should be able to offer assistance in the form of advice as well as their possible participation in any actual emergency.

a. Basic Requirements. Development of the Emergency Plan requires:
   (1) A description of what the Plan will cover
   (2) A description of what constitutes an emergency. (This includes minor incidents which could become major catastrophes if not tended to.)
   (3) A knowledge of the means for dealing with and controlling an emergency.
   (4) A knowledge of the three major elements that are implemented during an emergency, viz., COMMAND, CONTROL and COMMUNICATIONS.
   (5) An understanding of the phases of an emergency.
   (6) Appropriate procedures for the specific emergency (water rescue plan if the airport is near a large body of water, e.g.)
b. Scope. The scope of the AEP details the area covered by the Plan and those involved in it. This includes:

(1) The Airport map, grid map, or survey, as appropriate.
(2) Communications, including telephone numbers, radio frequencies, pager numbers, etc., as applicable.
(3) (Chain of) Command or responsibilities of those involved.
(4) Action steps for selected/identified emergencies.
(5) Mutual Aid Agreements, if appropriate.
(6) Documentation (minimum, at all costs).

c. "Generic" Emergencies.

(1) aircraft incidents and accidents
(2) structural fires
(3) fuel spills
(4) natural disasters
(5) power failures

d. Complicating factors.

(1) weather-related, e.g. ice, extreme heat.
(2) emergency during a storm where telephone/power lines are down, or personnel cannot get supplies or relieved by next shift, et al.
(3) equipment deficiencies
Analysis of An Emergency.

Recognizing an emergency situation can be easy or difficult, depending on what is involved. Knowing where the line has been drawn, i.e., the situations that require assistance from the outside, is a most significant step in saving time and, possibly, a life. Therefore,

Define what can be handled by the airport. What are the limits of the airport's capabilities? Wh- is on han- for fire extinguishers? For emergency first aid? Is there anyone trained in emergency medical care? How much is too much in a fuel spill situation?

Determining Needs and Inventorying Resources.

An airport with ten based aircraft has needs far different than one with 150, and one with the potential for frequent flooding and a soft field must prepare differently than the one that is torn by the high winds of major storms. Preparing your airport for the kinds of problems that are most likely to be encountered will give you the edge when the real thing happens. Therefore,

Define what extinguishing capability exists and where fire extinguishers are located.

Define what your airport needs to close a runway, reposition aircraft during adverse weather...or where extra tiedown ropes, cement blocks, etc. can be obtained.

If power outages are frequent, or likely in certain conditions, how do you substitute for basic lighting needs? If there was a fueling mishap during an offloading, what would you do?

Are there tenants on the airport who are willing to assist in checking the items that have been identified above? Are any of them skilled in emergency care, firefighting or security?

Do you have people around the airport whose interest in aviation can be translated into voluntary projects? Is there a school in the area that could be interested in these projects?
The Basics.

No two ways about it. Communication and some temporary protection: those are the basics. If you know how to get help, the quickest way possible, night and day, you will save time. You will be doing all you can do. And when **YOU** are not around, the provisions you make for someone else to get help will save time. Any municipality, county or state (political subdivision) that does not provide or help provide a means of communications 'tween a publicly owned airport and emergency assistance should be reminded of government responsibilities. Vandal-proof systems are available, and calls can be directed to the police office, fire department, etc. exclusively.

Preparing The Plan.

Start with an Introduction.

This Plan has been developed to assist in preparing for emergency situations. It was developed with cooperation from the FAA, State Police, Sheriff's Office and local Firefighting and Police personnel.

What are the requirements?

The Plan addresses the following:

What an emergency is
What response is available
Who can assist
What resources are available
How response is to be executed (procedures)
Who has the basic responsibilities and authorities

Move on to a description of the airport.

This airport consists of (# of) acres and is located (n) miles from the city of Friendship. The airport has (# of) runway(s), and is served by an instrument approach to Runway (n). The navigational facility for the approach is located on the field (n miles to the south, etc.).
Now you are ready to handle the requirements that were listed as the items to be addressed by the Emergency Plan.

Attached is a sample Plan. Yours may be more complex, or it may be simpler. **YOUR** airport needs an Emergency Plan tailored to its activities. Time to get started!

Chapter 3

Testing The Plan.

Why do we test? The answer should be fairly obvious. How do you know something will work or won't work? How do you find better ways to do things? And how do you really get an idea of how much time it takes to go to the approach end of the farthest runway? Certificated airports, required by the Federal Aviation Administration to have an airport emergency plan, regularly test their plans and often find something that has changed or wasn't right to begin with. It can be a breakdown in communications, a telephone or line that wasn't hooked up the way everyone thought it was, a bell in the firehouse that suddenly doesn't work... It can be a water line that wasn't repaired properly or a pump that has finally broken...

These things are best discovered during a practice....not the real thing.

What Should Be Tested.

Any part of the Plan that can go wrong, will. Test all the parts that are critical to GETTING somewhere, all communications, all estimates of how much time it takes to do various things. Test personnel! Do they know what to do in an emergency?
How The Plan Should Be Tested.

There are various scenarios for testing a Plan. Including all the players at least once a year is advisable. If the local firefighters and police are involved, a training exercise will allow them to become familiar with the airport. Use this opportunity to advantage. A tour of the airport can be your chance to talk aviation to people who not only need to know what is meant by the approach end of a runway but who are also probably very curious about the airport. Even a flight to look at terrain and other features of the airport can be a wise investment.

They, in turn, will be able to help you get personnel trained to use fire extinguishers, understand fire hazards, and to take the extra precautions that make your airport safe for employees.

Evaluating The Plan.

Evaluating the Plan will show you weak spots. Maybe you will relocate some of the fire protection. You may also decide that if an accident occurs at the approach end of a runway, it is best to use the access road to that location, which means the firefighters would not come to the airport office first but go directly to the approach end of the runway. That means directions have to be given during the report of the emergency. It also means that firefighters have to be familiar with the access road. When you evaluate YOUR Plan, will you have thought of these contingencies?
SUMMARY

Airports are, increasingly, the focal points in the community. For good or for bad, the airport attracts attention, because the people who fly generally have a higher profile than other citizens. If the airport can enlarge its circle to bring in the people who serve as protection, firefighting capability, security, then it will have taken appropriate steps for its next venture: bringing in certain of the public (students, teachers, other businesspersons). A safe, orderly and responsible facility is a basic requirement for this activity. If an airport can present itself as responsive and responsible, educational and businesslike, hospitable and secure, it stands a good chance of being viewed as an asset to the community. And when the airport is viewed as an asset, it has overcome the worst obstacle to its survival. How does your airport look?