Chapter 3

Background Data: Sacramento International Airport and Environs
Background Data: Sacramento International Airport and Environs

**OVERVIEW**

The purpose of this chapter is to document information regarding Sacramento International Airport and its environs that provides the setting upon which this Sacramento International Airport Land Use Compatibility Plan is based. The physical configuration and operational characteristics of the airport are critical determinants of the impacts that aircraft activity has on surrounding land uses. Furthermore, the character of current and planned land uses in the surrounding area must be weighed in the development of the compatibility criteria. Lastly, this information is directly relevant to assessment of the environmental impacts of adoption of the plan as required under the California Environmental Quality Act (CEQA) as examined in a companion document.

**LOCATION AND HISTORY**

Sacramento International Airport (SMF) is located in north-central California in an unincorporated area of northwestern Sacramento County. The nearest portion of the City of Sacramento lies approximately two miles southeast of the airport, while the City of West Sacramento lies approximately six miles south and the City of Woodland approximately seven miles to the west. The common boundary between Yolo, Sutter and Sacramento counties is situated just north of the airport.

Opening in 1967, the airport was first known as Sacramento Metropolitan Airport. Prior to the opening, all local commercial airline flights were operated through Sacramento Executive Airport. The airport surpassed one million passengers within its first year of operation. Today the airport has scheduled passenger and freight service from more than fifteen different airlines.

**EXISTING FACILITIES**

The current runway configuration is comprised of two parallel runways. Runways 16L-34R and 16R-34L are oriented north/south and both are 8,600 feet long. Both runways are served by full-length parallel taxiways. The terminal areas and aprons are located between the two parallel runways.
AIRPORT MASTER PLAN STATUS AND FUTURE AIRFIELD IMPROVEMENTS

Work on the current Sacramento International Airport Master Plan was initiated in 2000. In February 2004, the County Board of Supervisors accepted the Master Plan and directed commencement of the environmental review. The Master Plan contains two important development plans relevant to this Compatibility Plan. The Master Plan proposes a third 8,600-foot parallel runway west of the existing airfield system and re-designates Runway 16R-34L as the center runway (16C-34C). The Master Plan also proposes a 2,400-foot extension to Runway 16L-34R split between both ends for a future length of 11,000 feet. The environmental review for the Master Plan identified the environmentally superior alternative as a north-only extension to Runway 16L-34R of 2,400 feet. In August 2007, the Board of Supervisors certified the Environmental Impact Report (EIR) for the Master Plan and approved the Master Plan.

In 2012, the airport began the process of updating the Master Plan to reflect this northerly runway extension. Although it is expected that the update to the Master Plan will resolve the uncertainty surrounding the runway extension, the Compatibility Plan must protect for both possible scenarios until such time as single scenario has been definitively selected. Protection must also be provided for the current runway configuration until improvements are constructed. As such, the exhibits contained in this chapter depict both the split extension and the north-only extension together with the existing configuration. The split extension to Runway 16L-34R, with 1,000 feet to the north and 1,400 feet to the south, is reflected on an Airport Layout Plan (ALP) which was approved by the Federal Aviation Administration (FAA) in 2008. In May 2012, the FAA approved the current ALP for Sacramento International Airport which depicts this extension entirely to the north.

Exhibit 2 summarizes the airport facilities as presented in the 2004 Sacramento International Airport Master Plan and subsequent ALPs.

AIRPORT ACTIVITY

The Airport Master Plan forecast, which was prepared in 2001, predicted a higher level of growth than has actually occurred. For example, the Master Plan forecast indicates that there would be approximately 209,000 annual aircraft operations at Sacramento International Airport in 2010 versus the 126,305 that occurred. Similarly, the Master Plan forecast predicted that the airport would reach approximately 256,800 total annual operations around the 2020 timeframe, but the FAA’s Terminal Area Forecast (TAF)\(^1\) indicates that the airport will not reach this activity level until sometime after 2040. In fact, the TAF predicts that the operational levels approaching the recent 2006 peak of 174,938 annual operations will not return to the airport until after 2026. Beyond that timeframe, the TAF predicts continued growth with annual aircraft operations reaching approximately 200,000 in 20 years. It is important to note, however, aircraft operations could increase at a much higher pace than predicted for a variety of reasons including but not limited to a much stronger economic recovery than currently anticipated, one or more new air carriers beginning service, and new destinations being served.

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\(^1\) The Terminal Area Forecast (TAF) system is the official forecast of aviation activity at Federal Aviation Administration (FAA) facilities.
Theoretic Capacity Forecast

In August 2004, PB Aviation prepared an analysis of the functional capacity of Sacramento International Airport for land use compatibility planning purposes. The analysis considered the annual number of aircraft operations the airport could handle if all of the facilities identified in the Airport Master Plan were developed. The analysis determined that Sacramento International Airport would have a Theoretic Capacity of approximately 450,000 annual operations with full Master Plan build out. This Theoretic Capacity forecast has been adopted by the County of Sacramento for land use planning purposes. It is important to note that this number of forecast annual operations results from the planned terminal facilities, airfield development (runways, taxiways, aprons, etc.), and the expected aircraft fleet mix. The Theoretic Capacity is intended to represent a reasonable upper bound on the amount of traffic the airport can handle, so that the appropriate level of airport land use planning can be accomplished to ensure compatibility between the aircraft operations and the surrounding land uses. The Theoretic Capacity operations, aircraft fleet mix, runway use, etc. were entered into the FAA-approved Integrated Noise Model to develop a set of Community Noise Equivalent Level (CNEL) contours that could be used for land use planning purposes.

Surrounding Land Uses

Sacramento International Airport is located in the northwestern portion of Sacramento County, approximately 10 miles from Downtown Sacramento. The Sacramento River which is located about a half mile west of the airfield forms the boundary between Sacramento and Yolo Counties. Sutter and Placer counties are located two and six miles north and northeast of the airport, respectively. The unincorporated areas of these three counties are primarily agricultural. Established residential neighborhoods associated with the City of Sacramento exist approximately two miles east/southeast of the airfield. Urban development in the City of West Sacramento is located about six miles to the south.

Local general plans show future growth patterns moving towards the airport. The City of Sacramento’s 2030 General Plan proposes a new residential community, known as the Greenbriar community, located in the northwestern limits of the City of Sacramento west of Highway 99 and north of Interstate 5. This planned community is located northwest of the North Natomas community of the City of Sacramento and east of the Metro Air Park, an industrial/business park in unincorporated northwest Sacramento County.

On December 10, 2002, the Sacramento City Council and County Board of Supervisors adopted a Memorandum of Understanding (MOU) outlining principles of land use and revenue sharing between the City and County of Sacramento for the Natomas area, setting the stage for what has come to be known as the Natomas Joint Vision. The Natomas Joint Vision is a collaborative process between the City and County to consider a plan for development and habitat preservation in the unincorporated northwest portion of the County. The Natomas Joint Vision Study Area covers a contiguous land area of approximately 20,000 acres in the unincorporated northwestern area of Sacramento County within the Natomas Basin (see Exhibits 15 and 16). The cooperative effort addresses land use, economic development, and environmental opportunities and challenges in Natomas. Subsequent to the adoption of the Sacramento County 2030 General Plan in November 2011, the Board of Supervisors initiated the Northwest Master Plan and General Plan Amendments for the Natomas Joint Vision Area in February 2012. The Northwest Master Plan process will determine the boundary locations of an expanded Urban

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Services Boundary and Urban Policy Area, associated rezones and a Special Planning Area zone. The result will be quality development balanced with permanent open space preservation systems.

In Sutter County, along the southern boundary abutting Sacramento County, a new unincorporated community is planned. The Sutter Pointe Specific Plan straddles Highway 99 with mixed use on the west of the Highway and a mix of uses including industrial, commercial and residential uses east of the Highway. The Plan is comprised of a series Employment and Residential “Villages”.

The County of Yolo adopted the Elkhorn Specific Plan in 2009. The Specific Plan area is located immediately west of the Sacramento River along Interstate 5, less than two miles west of Sacramento International Airport. The Specific Plan tentatively calls for 300 acres of commercial and industrial land uses with upper story residential uses, 23 acres of Open Space and 20 acres of Public and Quasi-Public uses. The 2030 Countywide General Plan includes a policy (Policy CC-3.16E) to modify and amend the Elkhorn Specific Plan to accommodate high density residential development to provide workforce housing. The precise number of units will be determined through the specific plan and associated environmental review process.

Also in Yolo County, the City of Woodland west of the airport is expanding eastward toward the airport. The General Plan calls for studying the possibility of using a 900-acre industrial waste water facility for urban development at some point in the future and designates the property and the surrounding area as Urban Reserve. No development can occur within the Urban Reserve area without a General Plan amendment. Other planned land uses include Industrial, Business Park, and Highway Commercial east of County Road 102 and planned neighborhoods west of County Road 102 and south of Gibson Road.

To the east in Placer County, three Specific Plan projects are proposed. Although far enough from the airport to not be greatly impacted, these areas would be subject to aircraft overflights. They are:

- The Regional University Specific Plan project comprises 1,157.5 acres and incorporates two integrated elements: a 600 acre University and a 557.5 acre Community. Located west of the City of Roseville and approximately 3 miles north of the Sacramento County boundary, the primary components of the University include the academic core, the quad, the campus commons, administration, student village, athletic facilities, faculty housing, retirement housing and open space areas. The Community is conceived as a full service community incorporating residential, retail/office, public facilities, parks and open space. The Board of Supervisors approved this Specific Plan in December 2008 and incorporated it into the General Plan.

- The Placer Vineyards Specific Plan project is a mixed-use master planned community with residential, employment, commercial, open space, recreational and public/quasi-public land uses. The Plan is located in the southwest corner of Placer County, just north of the Sacramento County boundary and it provides for 14,132 homes in a range of housing types, styles, and densities. At Plan build out, projected to occur over a 20 to 30-year time frame, Placer Vineyards will have a population of approximately 33,000 people, 274 acres of commercial uses, 641 acres of quasi-public (public facilities/services, religious facilities, schools, and major roadways) land uses, and 919 acres of park and open space land. The Board of Supervisors approved this Plan on July 16, 2007.

Exhibit 12 provides additional information about current and planned land uses in the environs of the Sacramento International Airport. Exhibit 14 maps the current land uses. Finally, Exhibits 15 and 16 show planned future land use development as reflected in the adopted general plans of the surrounding
jurisdictions. At this time, none of the local jurisdictions are in the process of updating the land use element of their respective general plans.

EXHIBITS

The following exhibits illustrate the compatibility factors and background information which will be the basis for the Sacramento International Airport Land Use Compatibility Plan.

► Exhibit 1: Airport Location—Depicts the Airport’s location within the Sacramento area as well as in California.

► Exhibit 2: Airport Features Summary—Summarizes information pertaining to the airport configuration, operational characteristics, and applicable planning documents.

► Exhibit 3: 2012 Airport Layout Plan—The current ALP approved by the FAA in May 2012 depicts a north-only extension to Runway 16L-34R. Following FAA approval, the ALP will be submitted to the California Division of Aeronautics for acceptance as the basis of the Sacramento International Airport Land Use Compatibility Plan.

► Exhibit 4: 2008 Airport Layout Plan—The FAA-approved ALP depicting the north and south extension to Runway 16L-34R. Areas identified as agricultural use on this ALP are no longer identified as such on the 2012 ALP. All agricultural leases on Sacramento International Airport property were allowed to expire on December 31, 2007.

► Exhibit 5: Airport Activity Summary—Summarizes existing and forecast activity levels for the airport as well as specific Integrated Noise Model (INM) inputs required for the generation of the Theoretic Capacity noise contours.

► Exhibit 6: Radar Data—Graphical depiction of radar flight tracks. The viewports depict all aircraft types in south flow, all aircraft types in north flow, and T-38 tracks in south and north flow. Radar tracks were taken from four days in 2011, one from each quarter of the calendar year.

► Exhibit 7: Noise Factors Map—Two depictions of noise contours based on the Theoretic Capacity of the airport which reflect the north only and split extension to Runway 16L-34R.

► Exhibit 8: Safety Factors Map – Existing Runway Configuration—This exhibit contains the existing runway configuration with generic Large Air Carrier Safety Zones, and the Long General Aviation Safety Zones as presented in the California Airport Land Use Planning Handbook, as well as military safety zones.

► Exhibit 9: Safety Factors Map – Split Extension—This exhibit contains the future split extension runway configuration with generic Large Air Carrier Safety Zones, and the Long General Aviation Safety Zones as presented in the California Airport Land Use Planning Handbook, as well as military safety zones.

► Exhibit 10: Safety Factors Map – North-Only Extension—This exhibit contains the future north only extension runway configuration with generic Large Air Carrier Safety Zones, and the Long General Aviation Safety Zones as presented in the California Airport Land Use Planning Handbook, as well as military safety zones.
- **Exhibit 11: Overflight Factors**—Depicts the relationship between radar tracks, single event military noise contours and the Airport Planning Policy Area.

- **Exhibit 12: Airport Environ Information**—Summarizes information about current and planned land uses in the environs of the Sacramento International Airport. Airport land use compatibility policies contained in each general plan is also summarized.

- **Exhibit 13: School Districts**—Identifies the school districts within the airport environs. Children’s schools (Kindergarten through Grade 12) and community colleges are also shown. In accordance with Public Utilities Code Section 21670(f), school districts, community college districts and special districts are included among the local agencies that are subject to airport land use laws. Information on school districts within Sutter and Yolo Counties is pending. A map showing special districts is also pending.

- **Exhibit 14: Existing Land Uses**—Maps current land uses within the airport environs. Land use designations are based on GIS data provided by each county.

- **Exhibit 15: General Plan Land Use – County Data**—Shows planned land use designations as reflected in the adopted general plan land use diagrams for Sacramento, Placer, Sutter and Yolo counties. Planned land uses shown for the areas within the Primary Study Area.

- **Exhibit 16: General Plan Land Use – City Data**—Depicts planned land use designations as reflected in the adopted general plan land use diagrams for the cities of Davis, Sacramento, Roseville, West Sacramento and Woodland. Planned land uses are shown for the areas within the Primary Study Area. For Roseville and Woodland, the majority of the area captured in the study area includes areas within the cities’ sphere of influence.
CHAPTER 3
BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

Exhibit 1

Legend

Sacramento International Airport (SMF)
Existing Runways
Future Runways
Primary Study Area
Secondary Study Area
County Boundary
City Boundary
City Sphere of Influence

Prepared By Environmental Science Associates
Source: ESRI, 2009; SACOG, 2010, Placer County, 2011; and ESA, 2012

Sacramento International Airport
GENERAL INFORMATION

- **Airport Ownership:** County of Sacramento
- **Operated by:** Sacramento County Airport System (SCAS)
- **Year Opened**
  - Opened October 1967 as Sacramento Metropolitan Field
  - Terminal A opened in 1998, airport renamed Sacramento International Airport
  - New Terminal B opened October 2011
- **Property Size**
  - Sacramento County owns approximately 5,888 acres surrounding airport
  - Approximately 1,814 acres makeup the Airport Operations Area
  - The airport area between I-5 on the south, Power Line Road on the east, the airport perimeter fence on the west and Elverta Road on the north is approximately 2,479 acres.
- **Airport Classification:** Medium hub
- **Airport Elevation:** 27 ft. MSL

RUNWAY/TAXIWAY DESIGN

**Runway 16L-34R**
- **Airport Reference Code:** C-IV
- **Critical Aircraft:** Boeing 767-300 (occasional military C-5 operations)
- **Dimensions:** 8,600 ft. long, 150 ft. wide
- **Pavement Strength** (main landing gear configuration)
  - 100,000 lbs. (single wheel)
  - 209,000 lbs. (dual wheel)
  - 407,000 lbs. (dual-tandem wheel)
  - 850,000 lbs. (double-dual-tandem)
- **Effective Gradient:** 0.03%
- **Runway Lighting and Visual Approach Aids**
  - High intensity runway lights (HiRL), center line (CL), and touchdown zone (TDZ)
  - Runway 16L: MALS/R/PIAPI-4
  - Runway 34R: PAPI-4
- **Primary Taxiways:** Full-length parallel taxiway on west (D); cross-field taxiway (Y)

**Runway 16R-34L (Future 16C-34C)**
- **Airport Reference Code:** C-IV
- **Critical Aircraft:** Boeing 767-300 (occasional military C-5 operations)
- **Dimensions:** 8,600 ft. long, 150 ft. wide
- **Pavement Strength** (main landing gear configuration)
  - 100,000 lbs. (single wheel)
  - 209,000 lbs. (dual wheel)
  - 407,000 lbs. (dual-tandem wheel)
  - 850,000 lbs. (double-dual-tandem)
- **Effective Gradient:** 0.06%
- **Runway Lighting**
  - High intensity runway lights (HiRL), center line (CL), and touchdown zone (TDZ)
  - Runway 16R: ALSF-2
  - Runway 34L: MALSR, VASI-4
- **Primary Taxiways:** Full-length parallel taxiway on west (A); cross-field taxiway (Y)

BUILDING AREA

- **Airside Facilities**
  - Two parallel, north/south runways
  - 27,000 linear feet of existing taxiways
  - 35 acres of passenger terminal apron area; 4-acre air cargo apron; 3-acre DHL apron; and 8-acre general aviation apron
  - FAA Air Traffic Control Tower
- **Landside Facilities**
  - Two passenger terminals (A and B)
  - Five-floor parking structure and surface parking lots
  - Rental car facilities
  - Three air cargo hangars totaling 40,000 sq. feet
  - 19,000 sq. foot USPS facility
  - 66,440 sq. feet of general aviation hangar space
  - Airport rescue and fire-fighting (ARFF) facility
  - Fuel storage and delivery system
  - Airport maintenance facilities
  - 19,000 sq. foot airport administration building

AIRPORT PLANNING DOCUMENTS

- **Airport Master Plan, 2004**
- **Airport Master Plan Environmental Impact Report, Certified July 2007**
- **Airport Layout Plan, 2008**
- **Draft Airport Layout Plan, 2012**
- **Comprehensive Land Use Plan, 1994**
- **Wildlife Hazard Management Plan Update, 2010**
- **Airport Wildlife Hazard Assessment, 2012**

APPROACH PROTECTION

- **Approach Obstruction**
  - Runway 16L-34R: None
  - Runway 16R(C)/34L(C): None
- **Runway Protection Zones**
  - Runway 16L-34R: All on airport property
  - Runway 16R(C)/34L(C): All on airport property
  - Future Runway 16R-34L: All on future airport property

Exhibit 2

Airport Features Summary
Sacramento International Airport
CHAPTER 3  BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

FUTURE AIRPORT FACILITIES

Future Runway 16R-34L

- Airport Reference Code: C-IV
- Critical Aircraft: Boeing 767-300 (occasional military C-5 operations)
- Dimensions: 8,600 ft. long, 150 ft. wide

Runway 16L-34R

- Two Runway Extension Scenarios:
  - 1,000’ extension to north, 1,400’ extension to south
  - 2,400’ extension to north

Land Acquisition

- 310 acres for future runway

TRAFFIC PATTERNS AND APPROACH PROCEDURES (CONTINUED)

Airplane Traffic Patterns

- Runway 16L and Runway 34L: Left Traffic
- Runway 16R and Runway 34R: Right Traffic
- Pattern Altitude: 1,000 – 1,500 Feet AGL

Instrument Approach Procedures

- ILS or LOC Runway 16L
  - Straight-in (200’ AGL Min Decent Alt; ½-mile visibility)
  - Circling (413’ AGL Min Decent Alt; 1-mile visibility)
- ILS or LOC Runway 16R
  - Straight-in (200’ AGL Min Decent Alt; ½-mile visibility)
  - Circling (413’ AGL Min Decent Alt; 1-mile visibility)
- CAT II and CAT III Approaches Available
- ILS or LOC Runway 34L
  - Straight-in (200’ AGL Min Decent Alt; ½-mile visibility)
  - Circling (413’ AGL Min Decent Alt; 1-mile visibility)
- RNAV (GPS) Runway 16L
  - Straight-in (353’ AGL Min Decent Alt; ½-mile visibility)
  - Circling (413’ AGL Min Decent Alt; 1-mile visibility)
- RNAV (GPS) Runway 16R
  - Straight-in (375’ AGL Min Decent Alt; ½-mile visibility)
  - Circling (413’ AGL Min Decent Alt; 1-mile visibility)
- RNAV (GPS) Runway 34L
  - Straight-in (250’ AGL Min Decent Alt; ½-mile visibility)
  - Circling (413’ AGL Min Decent Alt; 1-mile visibility)
- RNAV (GPS) Runway 34R
  - Straight-in (352’ AGL Min Decent Alt; 1¼-mile visibility)
  - Circling (693’ AGL Min Decent Alt; 1-mile visibility)

Standard Instrument Departure Procedures (Initial Segments)

- DUDES NINE
  - Runways 16L/R: Runway heading until 600’, then left turn to a 120° heading
  - Runways 34L/R: Runway heading until 1,500’, then right turn to 140° heading
- FROGO SIX
  - Runways 16L/R: Runway heading until 600’, then left turn to a 120° heading
  - Runways 34L/R: Runway heading until 1,500’, then right turn to 140° heading

Operational Restrictions/ Noise Abatement Procedures

- ALSF 2 operates as SSALR during VFR conditions
- Noise sensitive areas west of airport on Sacramento River. Local turn discouraged for jet aircraft. When conducting IFR approach in VFR conditions, execute missed approach at departure end of runways. Plan VFR patterns to the east. Use minimum power settings.

ABBREVIATIONS

- AGL: Above Ground Level
- ALSF-2: Approach Lighting System with Sequence Flashers
- ATCT: Air Traffic Control Tower
- GPS: Global Positioning System
- IFR: Instrument Flight Rules
- ILS: Instrument Landing System
- LOC: Localizer Approach
- RNAV: Area Navigation
- SSALR: Simplified Short Approach Lighting System with Runway Alignment Indicator
- TWY: Taxiway
- VFR: Visual Flight Rules

Source: Mead & Hunt, Inc. and ESA Airports (March 2012)
As of November 9, 2011, the Board of Supervisors no longer allows agricultural use of airport lands. Land north of Elverta Road and south of I-5 are designated as Airport Management Areas and managed exclusively by the Airport to minimize hazardous wildlife attractants in the airport approach, departure, and circling airspace.
### Airport Activity

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<th>Activity</th>
<th>Current (2011)</th>
<th>Theoretic Capacity</th>
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<tr>
<td>Aircraft Operations</td>
<td>117,502</td>
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<td>Air Passengers (millions)</td>
<td>8.7</td>
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<td>Air Freight (thousand tons)</td>
<td>70.8</td>
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<td>Airmail (thousand tons)</td>
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### Operations by Aircraft Category

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<th>Category</th>
<th>Current (2011)</th>
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<td>Air Carrier/Commuter</td>
<td>101,800</td>
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<td>General Aviation</td>
<td>11,049</td>
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### Operations by Aircraft Type

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<td>Air Carrier</td>
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<td>F100</td>
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<td>737-500</td>
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<td>737-700</td>
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<td>737-400</td>
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<td>A320</td>
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<td>737-800</td>
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<td>757</td>
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<td>767</td>
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<td>EMB 120</td>
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<td>Fairchild SA26</td>
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<td>C5</td>
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<td>T38</td>
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<tr>
<td>KC135</td>
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Source: PB Aviation, 2004

### Runway Use Distribution

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<td>Takeoffs</td>
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<tr>
<td>Runway 16L</td>
<td>36%</td>
<td>43%</td>
<td>19%</td>
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<tr>
<td>Runway 16R</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Runway 16C</td>
<td>40%</td>
<td>41%</td>
<td>33%</td>
</tr>
<tr>
<td>Runway 34C</td>
<td>11%</td>
<td>7%</td>
<td>28%</td>
</tr>
<tr>
<td>Runway 34L</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Runway 34R</td>
<td>13%</td>
<td>9%</td>
<td>18%</td>
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Source: PB Aviation, 2004

Exhibit 5

Airport Activity Summary
Sacramento International Airport
CHAPTER 3
BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

Legend
- Sacramento International Airport (SMF)
- Existing Runway
- County Boundary
- City Boundary
- City Sphere of Influence

Flight Tracks
- Flight Track Altitude 0-1,000’ MSL
- Flight Track Altitude 1,000-2,000’ MSL
- Flight Track Altitude 2,000-3,000’ MSL

Notes

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)
CHAPTER 3

BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

Legend
- Sacramento International Airport (SMF)
- Future Property Acquisition
- Existing Runway
- Future Runway
- County Boundary
- City Boundary
- City Sphere of Influence
- Noise Contours
  - CNEL 60-65
  - CNEL 65-70
  - CNEL 70-75
  - CNEL 75+
- Composite Noise Impact Area Boundary

Notes
2. Both runway extension scenarios are based on the same activity assumptions.
3. See Exhibit 5 for activity table.

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)

Exhibit 7
Exhibit 8
Sacramento International Airport

**Safety Factors Map:**
Existing Runway Configuration

Legend
- Sacramento International Airport (SMF)
- Existing Runway
- County Boundary
- City Boundary
- City Sphere of Influence

Safety Zone Factors
- Generic Air Carrier
- Generic General Aviation
- Generic Military - Straight Out/In path
- Military - Typical Turning Path
- Military - Modified
- Safety Policy Zones

Notes
2. Air carrier, general aviation, and military aircraft accident risks are all components of safety zones at Sacramento International Airport. Existing and future runway configuration scenarios are also components. Safety Zone policy map boundaries are a composite of all components.

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)

Exhibit 8
Existing Runway Configuration
CHAPTER 3
BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

Legend
- Sacramento International Airport (SMF)
- Future Property Acquisition
- Existing Runway
- Future Runway
- County Boundary
- City Boundary
- City Sphere of Influence

Safety Zone Factors
- Generic Air Carrier
- Generic General Aviation
- Generic Military - Straight Out/in Path
- Military - Typical Turning Path
- Military - Modified
- Safety Policy Zones

Notes
2. Air carrier, general aviation, and military aircraft accident risks are all components of safety zones at Sacramento International Airport. Existing and future runway configuration scenarios are also components. Safety Zone policy map boundaries are a composite of all components.
Sacramento International Airport

 legend:
- Sacramento International Airport (SMF)
- Future Property Acquisition
- Existing Runway
- Future Runway
- County Boundary
- City Boundary
- City Sphere of Influence

Safety Zone Factors
- Military - Modified
- Safety Policy Zones
- Air Carrier
- General Aviation
- Military - Straight Out/In path
- Military - Typical Turning Path

Notes
2. Air carrier, general aviation, and military aircraft accident risks are all components of safety zones at Sacramento International Airport. Existing and future runway configuration scenarios are also components. Safety Zone policy map boundaries are a composite of all components.

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)
Prepared By Mead & Hunt, Inc., 2013

1. Radar Track Source: Sacramento County Airport System.

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)

Base Map Source: ESRI, 2009; Sacramento County, 2011; Placer County, 2010; Solano, 2010; Yolo County, 2010; and ESA, 2012
AIRPORT SITE

- **Location**
  - Located in northwestern corner of Sacramento County near I-5 and the Sacramento River, approximately 9 miles northwest of central Sacramento
- **Nearby Terrain**
  - Relatively flat in immediate vicinity
  - Sierra Nevada Mountain Range to the east

AIRPORT ENVIRONS LAND USE JURISDICTIONS

**Sacramento County**
- Airport lies in northwest corner of county
- North Natomas Community located 2 miles southeast of airfield

**Placer County**
- 6 miles northeast of airfield
- City of Roseville Limits
  - 11 miles northeast of airfield

**Solano County**
- 12 miles southwest of airfield

**Sutter County**
- 2 miles north of airfield

**Yolo County**
- 0.5 mile west of airfield
- City of Davis
  - 9.5 miles southwest of airfield
- City of West Sacramento
  - 6 miles south of airfield
- City of Woodland
  - 6 miles east of airfield

EXISTING AIRPORT AREA LAND USES

Source: Google Earth

- **General Character**
  - Airport lands surrounded primarily by agricultural uses; Metro Air Park located to east; Golf course located 0.5 mile west of airfield; Sacramento River located 0.5 mile west of airfield; and Residential and commercial development in North Natomas Community of the City of Sacramento encroaching airport from east
- **Runway Approaches**
  - North (Runway 16R/L): Airport lands and agriculture; Sutter County line 2 miles north of runway ends
  - South (Runway 34R/L): Airport lands and agricultural uses; Yolo County line 2 miles south of runway ends

STATUS OF COMMUNITY PLANS

**Sacramento County**
- General Plan of 2005-2030 adopted December 1993; amended November 2011
- General Plan Land Use Diagram amended November 2011
- Natomas Joint Vision Northwest Master Plan initiated in 2011 (adoption pending)
- Metro Air Park Special Planning Area including tentative map adopted July 2008
- 2030 General Plan adopted March 2009
- General Plan Land Use Diagram amended April 2011

**Placer County**
- Regional University Specific Plan adopted December 2008 and incorporated into the General Plan
- Placer Vineyards Specific Plan adopted July 2007
- General Plan 2025 adopted May 2010; updated September 2010
- General Plan 2025 Land Use Map adopted May 2010; updated November 2011

**Sutter County**
- General Plan adopted March 2011
- General Plan Land Use Diagram adopted March 2011; updated May 2011
- Sutter Pointe Specific Plan adopted June 2009 and incorporated into the General Plan

**Yolo County**
- 2030 Countywide General Plan and General Plan Land Use Map adopted November 2009
- Elkhorn Specific Plan adopted November 2009 and incorporated into General Plan
- Davis General Plan and General Plan Land Uses Map adopted May 2001 with amendments through 2007
- General Plan Land Use Map updated August 2009
- General Plan Policy Document and Land Use Diagram adopted December 2002

Exhibit 12

Airport Environ Information
Sacramento International Airport
CHAPTER 3  
BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

PLANNED AIRPORT AREA LAND USES

Sacramento County

- Sacramento County (Immediate Airport Environ)
  - Public & Quasi-Public on Airport-controlled land, Agricultural Cropland northeast, west and southeast of airport lands; Intensive Industrial to east
- City of Sacramento (East/Southeast)
  - City expanding westward
  - Greenbrier Community proposed immediately west of North Natomas, southeast of airport; uses mainly Medium Density Residential (7-17 du/ac); other uses include Low and High Density Residential (≤30 du/ac), Commercial, Parks, Employment Center (Low and Mid Rise)

Placer County (Northeast)

- Placer County (Northeast)
  - Intensive Development Reserve, Rural Residential (1 du/2.3-10 ac), Agriculture-Residential Development Reserve (1 du/4.6-20 ac), Agriculture/Timberland (1 du/20 ac), Agriculture/Timberland (1 du/80 ac), Regional University Specific Plan, and Placer Vineyards
- City of Roseville (Northeast)
  - Open Space and Public/Quasi Public; designations provide for area within City’s sphere of influence called “Reason Farms”

Sutter County

- Sutter County (North)
  - Agriculture and Sutter Pointe Specific Plan area including a mix of uses reflecting a new community (Residential, Schools, Parks, Commercial, Employment)

Yolo County

- Yolo County (West/South)
  - Agriculture, Specific Plan Area, Open Space, and Public and Quasi-Public
- City of Davis (Southwest)
  - Low to High Density Residential (3-25 du/ac), Public/Semi Public, Business Park, Office, Retail, Parks/Recreation
- City of West Sacramento (South)
  - Public/Quasi Public, Mixed Commercial/Industrial, Low to High Density Residential (1.1-25 du/ac)
- City of Woodland (West)
  - Urban Reserve, Public Service, Industrial, Highway Commercial, Low to Medium Density Residential (3-15 du/ac)

ESTABLISHED AIRPORT COMPATIBILITY MEASURES

Sacramento County

- Sacramento County 2005-2030 General Plan (2011)
  - Land Use (LU)-87: Because land decisions around airports by local governments have a direct impact on an airport’s long-term viability and utility, proposed new land use projects and land use practices near airports within Sacramento County shall consider consistency with current federal, state, and local airport land use compatibility regulations, orders, policies, plan, standards and guidance pertaining to public safety and minimization of hazardous wildlife attractants within five statute miles of County airports.

- Sacramento County 2005-2030 General Plan (2011) (continued)
  - LU-88: Project submittals for proposed new airport and helipad projects in Sacramento County shall include documentation of consistency with all current local, state, and federal regulations policies and guidance regarding air transportation facility design and land use compatibility.
  - Noise (NO)-2: Proposals for new development within Sacramento County which may be affected by aircraft noise shall be evaluated relative to [General Plan] Table 4: Land Use Compatibility for Aircraft Noise.
  - NO-3: New residential development within the 60 CNEL noise contours adopted by the County for planning purposes at any airport or helipad within Sacramento County shall be prohibited. This policy is not applicable to Executive Airport.

- NO-4: New residential development within adopted Airport Policy Area boundaries, but outside the 60 CNEL, shall be subject to the following conditions: 1) provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room; 2) notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within an Airport Policy Area; and 3) an Avigation Easement prepared by the Sacramento County Counsel’s Office granted to the County of Sacramento, recorded with the Sacramento County Recorder, and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within an Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the subject Airport. [See General Plan for exceptions]
  - Public Facility (PF)-78: Large solar and other renewable energy facilities should be referred to SCAS and FAA for review and comment.
  - PF-88: Locate new transmission towers at a distance from airport runways consistent with FAR Part 77.

- The County Board of Supervisors adopted Airport Planning Policy Areas (APPAs) for Sacramento International, Sacramento Mather, and McClellan as an interim effort to ensure airport land use compatibility during a period of rapid development that was outpacing the rate at which airport master plans, environmental documentation, and Airport Land Use Compatibility Plans could be updated. The APPAs will continue to be used by the County Airport System in evaluating and commenting on proposed land use project and activities near the airports. APPAs were adopted by Resolution numbers 2006-0490, 2006-1378, and 2006-1379, adopted April 19, 2006.

- City of Sacramento 2030 General Plan (2009)
  - Land Use (LU) 8.1.15: Airport Compatibility. The City shall work with the Sacramento County Airport System (SCAS) and the Airport Land Use Commission to ensure that new development near the area’s airports is compatible with airport operations and Airport Land Use Compatibility Plans.
  - LU 8.1.16: Consistency with Airport Land Use Commission Policies. The City shall ensure that all development is consistent with the policies adopted by the SACOG Airport Land Use Commission.

Exhibit 12, continued
### Established Airport Compatibility Measures

#### Sacramento County
- **City of Sacramento 2030 General Plan (2009)**
  - LU 8.1.17. Deed Notice. The City shall require that all new development within an airport-defined over-flight zone provide deed notices to future residents and property owners upon transfer of title concerning airport over-flights and noise.
  - LU 8.1.18. Airport Related Land Uses. The City shall encourage commercial and industrial developments requiring air service to locate in the vicinity of an airport.
  - Environmental Constraints (EC) 3.2.1. Land Use Compatibility. This City shall limit residential development within the 65 dBA CNEL airport noise contour, or in accordance with plans prepared by the Airport Land Use Commission, and shall only approve noise-compatible land uses.
  - EC 3.2.2. Hazardous Noise Protection. The City shall discourage outdoor activities or uses in areas outside the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.
  - EC 3.2.3. Cooperative Noise Reduction. The City shall work with the SCAS to monitor aircraft noise, implement noise-reducing operation measures (i.e., Fly Quiet, Fly Neighborly programs), and promote pilot awareness of noise sensitive land uses.

#### Placer County
- **Placer County General Plan Policy Document (2008)**
  - No compatibility policies pertaining to Sacramento International Airport
- **City of Roseville 2025 General Plan (2010)**
  - No compatibility policies pertaining to Sacramento International Airport

#### Sutter County
- **Sutter County General Plan (2011)**
  - No compatibility policies pertaining to Sacramento International Airport

#### Yolo County
- **Yolo County 2030 Countywide General Plan (2009)**
  - Land Use (LU)-3.6: Maintain the compatibility of surrounding land uses and development, so as not to impede the existing and planned operation of public airports.
  - Circulation (CI)-9.3: Protect airports from incompatible features, such as height obstructions (including trees that extend into the safety clearance area) and safety impediments (such as proximate concentrations of waterfowl).
  - Health and Safety (HS), Section 5a, Airport Operations, Background: Yolo County is affected by Sacramento International Airport. While the airport is not inside Yolo County, noise, safety and land use compatibility concerns do extend into Yolo County and must be addressed in this General Plan.
  - HS-5.1: Ensure that land uses within the vicinity of airports are compatible with airport restrictions and operations.
  - HS-5.2: Ensure that new development near commercial and public use airports is consistent with land use restrictions as determined by Sacramento Area Council of Governments Airport Land Use Commission. HS-5.3: Respect and conservatively enforce airport safety zones as identified in airports Comprehensive Land Use Plans.

- **Yolo County 2030 General Plan (2009)**
  - HS-7.5 Minimize the impact of noise from transportation sources including airports on nearby sensitive land use.
  - HS-A67: Limit land uses, consistent with adopted CLUP within identified airport safety zones.
  - HS-A68: Refer proposed development projects within areas requiring airport land use compatibility review to the ALUC.
- **City of Davis General Plan (2000 with amendments through 2007)**
  - No compatibility measures except the Background section of the Noise Element which states: The Sacramento International Airport currently does not significantly impact Davis with aircraft noise. The City of Davis must monitor future airport plans to become aware of any proposed changes to the flight paths.
- **City of West Sacramento General Plan Policy Document (2008)**
  - No compatibility policies pertaining to Sacramento International Airport
- **City of Woodland General Plan Policy Document (2002)**
  - CI-3.G.1. The City shall work closely with appropriate agencies, including the Sacramento Area Council of Governments (SACOG) and Yolo County, to ensure compatibility of land uses with air terminal facilities serving the Woodland community.
  - CI-3.G.2. The City shall emphasize compatibility of land uses for both urban development and for air terminal facilities to ensure the availability of services and quality living environment.
  - CI-3.G.4. The City will oppose changes in flight patterns that would increase flight activity over Woodland.
  - HS-8.D.1. The City shall work with Yolo and Sacramento Counties to ensure that new development around airports does not create safety hazards such as light from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards.
  - HS-8.D.2. The City shall ensure that development within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (objects affecting navigable airspace).

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**Exhibit 12, continued**
Exhibit 13

CHAPTER 3
BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

Legend
- Sacramento International Airport (SMF)
- School Districts
- Future Runways
- Primary Study Area
- County Boundary
- City Limits
- Sacramento Community College District
- Educational Facilities
- Elementary School Districts
- High School Districts
- Union/Elementary School Districts (color varies)
- Children's School (K-12)
- Community College

Prepared By Environmental Science Associates
Background Data: Sacramento International Airport and Environs

Chapter 3: Background Data: Sacramento International Airport and Environs

Base Map Source: Counties of Sacramento, 2011; Placer, 2010; Sutter, 2010; and Yolo, 2010; ESRI, 2009; and ESA, 2012

Legend:
- Sacramento County
- Sutter County
- Yolo County
- Placer County

Sacramento County:
- Rural Residential
- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Moderate-Intensity Office
- Community/Neighborhood Retail
- Regional Retail
- Community/Neighborhood Commercial/Office
- Regional Commercial/Office
- High-Intensity Office
- Mixed Use Employment Focus
- Light Industrial
- Heavy Industrial
- Urban Reserve
- Public/Quasi-Public
- "1-12 Schools"
- Agricultural
- Open Space

Sutter County:
- SFR
- SFR_VAC
- MFR
- COM
- COMM_T
- COM_VAC
- GEN_OFF
- GAS_WELL
- IND
- IND_VAC
- MINE
- RAIL
- MH
- MHP
- CEM
- CHURCH
- FIRE
- GOV
- GOVERN
- POLICE
- PUBLIC
- SCHOOL
- AG-20
- AG-80
- MARINA
- GOLF
- PARK
- OS

Yolo County:
- Rural Residential
- Single Family Large Lot
- Single Family Small Lot
- Attached Residential
- Retail
- Office
- Industrial
- Agriculture
- Open Space
- Parks
- Mixed Use Employment Focus

Placer County:
- Rural Residential
- Retail
- Agriculture
- Open Space
- Mixed Use Employment Focus

Source:
Sacramento County existing land use: SACOG 2008

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)

Existing Land Uses

Prepared By Environmental Science Associates
Exhibit 15

CHAPTER 3

BACKGROUND DATA: SACRAMENTO INTERNATIONAL AIRPORT AND ENVIRONS

Sacramento County

Placer County

Source:

Placer County General Plan – Adopted August 1994 – Amended December 2008
Placer Vineyards Specific Plan – Adopted July 2007
Regional University Specific Plan – Adopted December 2008
Sacramento County General Plan – Adopted December 1993 – Amended November 2011
Sutter County General Plan – Adopted March 2011
Sutter Point Specific Plan – Adopted June 2009
Yolo County General Plan – Adopted November 2009
Elkhorn Specific Plan – Adopted November 2009

General Plan Land Use County Data

Sacramento International Airport

Land Use Compatibility Plan
(Adopted December 12, 2013)


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Exhibit 16

Sacramento International Airport
Land Use Compatibility Plan
(Adopted December 12, 2013)

Base Map Source: Cities of: Sacramento, 2011; West Sacramento, 2010; Davis, 2012; Woodland, 2010; Roseville, 2011; ESRI, 2009; and ESA, 2012

Source:
City of Davis General Plan – Adopted May 2001 – Amended through 2007
City of Roseville General Plan – Adopted March 2011
City of Sacramento General Plan – Adopted March 2009
City of West Sacramento General Plan – Adopted May 1996 – Amended October 2008
City of Woodland General Plan – Adopted December 2002