



SAN BERNARDINO
COUNTY

APPLE VALLEY AIRPORT

Airport Master Plan

**DRAFT
AIRPORT MASTER PLAN**

**For
APPLE VALLEY AIRPORT**

**Prepared for
San Bernardino County Department of Airports**

By



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INTRODUCTION



INTRODUCTION

The San Bernardino County Department of Airports (SBCDA) owns and operates the Apple Valley Airport (APV). APV is situated on approximately 800 acres of property located roughly three miles north of the central business district of the Town of Apple Valley, California. The region is known as Southern California's Victor Valley, which is northeast of the San Gabriel Mountains in the Mojave Desert.

APV is a vital transportation infrastructure component that supports economic development and the quality of life for residents in and around Apple Valley. In addition to serving as an access point for air travelers to the national and international system of airports, the availability of air transport contributes to public safety by supporting police operations, firefighting teams, and air ambulance services.

A master plan is being undertaken for APV to provide airport management with proper guidance for future airport development that will satisfy aviation demands within Apple Valley and the greater regional area, while also being compatible with the environment and the communities which surround and support the airport.

WHAT IS A MASTER PLAN?

The Federal Aviation Administration (FAA) recommends that airports update their long-term planning documents every seven to 10 years, or as necessary, to address local changes at an airport. An important element of those planning documents is the airport layout plan, which the FAA uses to support grant funding decisions. The last master plan for the airport was completed in 1992, and an Airport Layout Plan Update was completed in 2006. A draft master plan was done in 2012; however, that document was not advanced to the FAA for approval of the airport layout plan. Therefore, it has been many years since the ALP has been officially updated. This master plan is long overdue and much needed as FAA design standards have changed significantly and the aviation industry continued to evolve.



The SBCDA is responsible for coordinating capital improvements at APV, as well as obtaining FAA and California Department of Transportation (Caltrans) Division of Aeronautics development grants, as necessary. In addition, the SBCDA oversees facility enhancements and infrastructure development conducted by private entities at the airport. **The master plan is intended to provide a vision for the future of the airport, guidance for development, and justification for projects** for which the airport may receive funding through an updated capital improvement program (CIP).

The airport master plan follows a systematic approach outlined by the FAA to identify airport needs in advance of the actual need for improvements. This is done to ensure that the SBCDA can coordinate environmental reviews, project approvals, design, financing, and construction to minimize the negative effects of maintaining and operating inadequate or insufficient facilities. An important outcome of the master plan process is a recommended development plan, which reserves sufficient areas for future facility needs. Such planning will protect development areas and ensure they will be readily available when required to meet future needs. The intended outcome of this study is a detailed, on-airport land use concept that outlines specific uses for all areas of airport property, including strategies for revenue enhancement.

The preparation of this master plan is evidence that the SBCDA recognizes the importance of the airport to the entire region and the associated challenges inherent in providing for its unique operating and improvement needs. The cost of maintaining an airport is an investment which yields impressive benefits to the local community. With a sound and realistic master plan, the airport can maintain its role as an important link to the regional, state, national, and global air transportation systems. Moreover, the plan will aid in supporting decisions for directing limited and valuable SBCDA resources for future airport development. Ultimately, continued investment in the airport will allow the airport and region to continue to reap the economic benefits that an airport brings.

Some common questions regarding what a master plan is and is not are answered in the graphic below.

<p>What an Airport Master Plan is:</p> <ul style="list-style-type: none"> → A comprehensive, long-range study of the airport and all air and landside components that describes plans to meet FAA safety standards and future aviation demand. → Recommended by the FAA to be conducted every 7-10 years to ensure plans are up-to-date and reflect current conditions and FAA regulations. The last Master Plan for APV was completed in 1992. The Airport Layout Plan (ALP) was last updated in 2006. → A Master Plan document that will ultimately be presented for approval to the San Bernardino County Board of Supervisors. The FAA will approve only two elements of the Master Plan, the Aviation Demand Forecasts and the Airport Layout Plan (ALP drawing set). → An opportunity for airport stakeholders and the general public to engage with airport staff on issues related to the airport and its current and future operations, and environmental and socioeconomic impacts. Three (3) public information workshops will be conducted throughout the Master Plan process to facilitate this public outreach effort. 	<p>What an Airport Master Plan is not:</p> <ul style="list-style-type: none"> → A guarantee that the airport will proceed with any planned projects. Master Plans are guides that help airport staff plan for future airport development; however, the need/demand for certain projects might never materialize. → A guarantee that the funding will be available for any planned projects. Project funding is considered on a project-by-project basis and requires appropriate need and demand. Certain projects may require the completion of a benefit-cost analysis. → Environmental clearance for specific projects. The Master Plan includes an environmental overview that identifies potential environmental sensitivities per the National Environmental Policy Act of 1969 (NEPA) guidelines. Most planned projects will require a separate NEPA study (environmental impact statement/environmental assessment/categorical exclusion) prior to construction.
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WHO IS PREPARING THE MASTER PLAN?

The SBCDA has contracted with the airport planning firm of Coffman Associates, Inc., to undertake the airport master plan. Coffman Associates is an airport consulting firm that specializes in master planning and environmental studies. Coffman Associates will lead the planning team with support from Martinez Geospatial, a firm specializing in aerial photography, ground survey, and GIS products to meet FAA 5300-18B requirements for Airports GIS data submittal.

The airport master plan update will be prepared in accordance with FAA requirements, including Advisory Circular (AC) 150/5300-13B, *Airport Design*, and AC 150/5070-6B, *Airport Master Plans*. The plan will be closely coordinated with other planning studies relevant to the area and with aviation plans developed by the FAA and Caltrans. The plan will also be coordinated with the Town of Apple Valley, as well as other local and regional agencies as appropriate.

GOALS AND ASSUMPTIONS

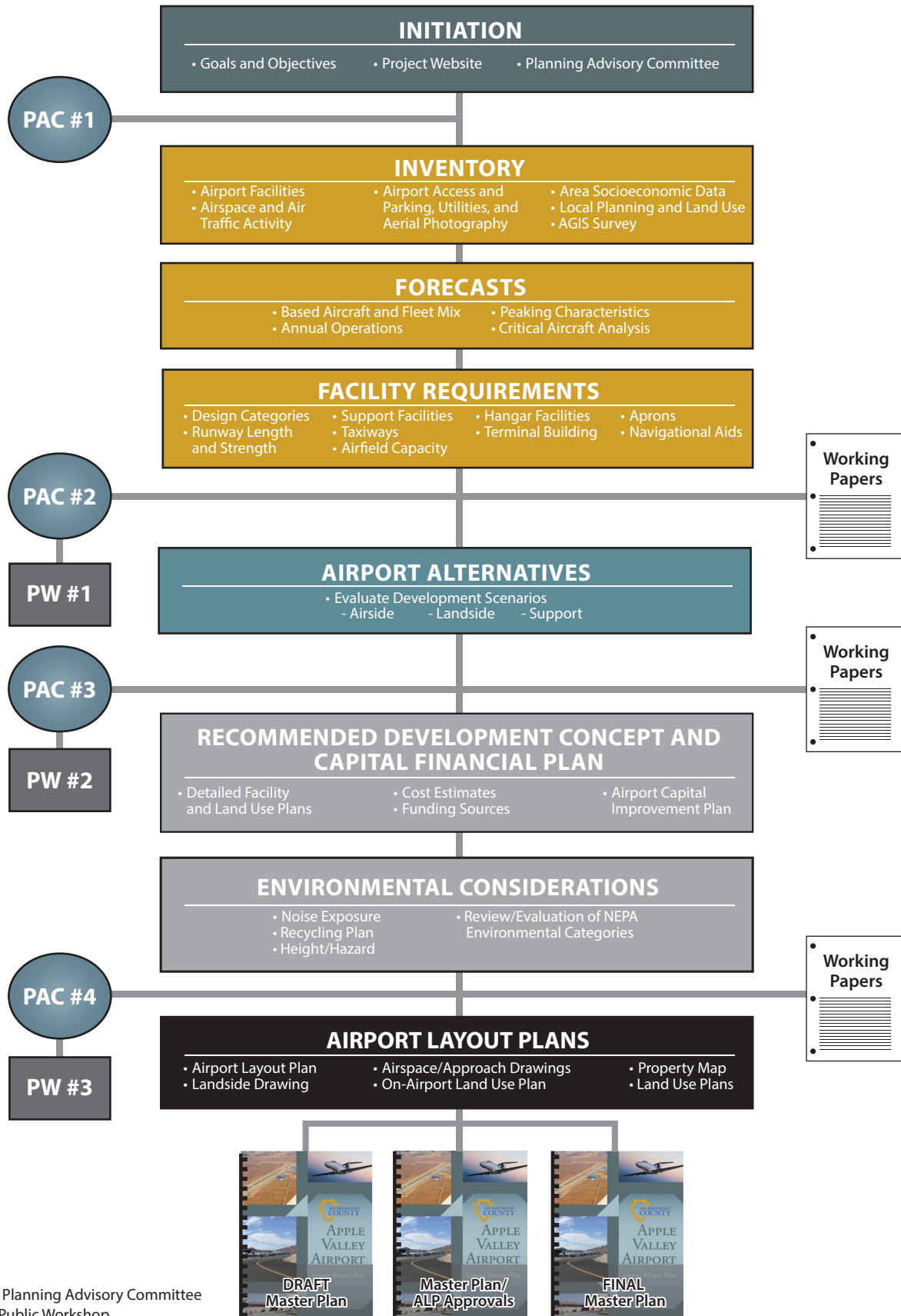
The primary goal of this master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while also considering potential environmental and socioeconomic impacts. Accomplishing this goal requires an evaluation of the existing airport to decide what actions should be taken to maintain a safe, adequate, and reliable facility. A long-range planning study also requires several baseline assumptions that will be used throughout the analysis. Specific assumptions for this study are as follows:

- The Apple Valley Airport will be maintained as a general aviation facility through the planning period.
- The aviation industry will develop through the planning period as projected by the FAA. Specifics of projected changes in national aviation industries are described in Chapter Two – Aviation Demand Forecasts.
- The socioeconomic characteristics of the region will generally change as forecast (see Chapter Two).
- A federal and state airport improvement program will be in place through the planning period to assist in funding future capital development needs.

MASTER PLAN ELEMENTS AND PROCESS

The master plan has 12 elements that are intended to assist in the evaluation of future facility needs and provide the supporting rationale for their implementation. **Exhibit iA** provides a graphical depiction of the process involved with the study.

Element 1 – Study Initiation and Organization includes the development of the scope of services, schedule, and study website. The Planning Advisory Committee (PAC) is also established at this stage, consisting of airport stakeholders to serve in an advisory capacity throughout the master plan process. General background information will be established that includes outlining the goals and objectives to be accomplished during the master plan.



PAC: Planning Advisory Committee
PW: Public Workshop

Element 2 – Inventory of Existing Conditions is focused on collecting and assembling relevant data pertaining to the airport and the area it serves. Information is collected on existing facilities and operations. Local economic and demographic data is collected to define the local growth trends, and environmental information is gathered to identify potential environmental sensitivities that might affect future improvements. Planning studies which may have relevance to the master plan are also collected. This element includes an AGIS 18B Survey/Obstruction analysis as required by FAA. This results in the acquisition of new aerial mapping (topographic/planimetric) of the airport and the surrounding environs.

Element 3 – Aviation Demand Forecasts examines the potential aviation demand at APV. The analysis utilizes local socioeconomic information, as well as national air transportation trends to quantify the levels of aviation activity which can reasonably be expected to occur at APV over a 20-year period. An existing and ultimate critical design aircraft, based upon AC 150/5000-17, *Critical Aircraft and Regular Use Determination*, is also established to determine future planning design standards. The results of this effort are used to determine the types and sizes of facilities which will be required to meet the projected aviation demand at the airport through the planning period. This element is one of two elements that are submitted to the FAA for approval.

Element 4 – Demand Capacity/Facility Requirements determines the available capacities of various facilities at the airport, whether they conform with FAA standards, and what facility updates or new facilities will be needed to comply with FAA requirements and/or projected 20-year demand.

Element 5 – Airport Development Alternatives considers a variety of solutions to accommodate projected airside and landside facility needs through the long-term planning period. An analysis is completed to identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development. The airspace around APV will also be evaluated during this element. Consideration of facilities to accommodate Advanced Air Mobility (AAM) and Electric Vertical Takeoff and Landing (eVTOL) aircraft will also be included.

Element 6 – Recommended Master Plan Concept provides both a graphic and narrative description of the recommended plan for the use, development, and operation of the airport. This includes both airside and landside recommendations, as well as on-airport land use classifications.

Element 7 – Environmental Documentation includes a baseline environmental inventory, with consideration given to resource categories within FAA Order 1050.1F, *Desk Reference*. Additionally, a recycling plan and environmental overview will be prepared that will identify potential environmental issues associated with the recommended concept, including mitigation measures that may be necessary for proposed projects. This element includes the development of noise exposure contours for the airport.

Element 8 – Capital Improvement Program (CIP) and Financial Plan recommends a 20-year capital program for APV, analyzing the benefits and costs associated with the recommended plan. Specific costs are established for each project, ensuring logical staging of improvements. Potential funding sources are also identified.

Element 9 – Airport Layout Plans is the preparation of the official Airport Layout Plan (ALP) drawings based on the recommended development concept. The ALP set is used by the FAA in determining grant eligibility. This element is the second element of the study that is submitted to the FAA for approval. The ALP will be developed in accordance with FAA's SOP 2.00, *Standard Procedure for FAA Review and Approval of Airport Layout Plans*.

Element 10 – Coordination Meetings/Project Management ensures that a project of this magnitude remains on schedule, through regular communication, coordination of various project-related activities (i.e., surveys, on-site evaluations, etc.), and preparation of progress reports.

Element 11 – Final Reports provide documents which depict the findings of the study effort and present the study and its recommendations to appropriate local organizations. The final document incorporates the revisions to previous working papers prepared under earlier elements into a usable master plan document, approved at both the local and federal levels.

Element 12 – CEQA Documentation for Master Plan Approval is required in the state of California. This element includes an Initial Study and a determination of the appropriate environmental documentation.

COORDINATION AND OUTREACH

This study is of interest to many within the local community and region. This includes local citizens and businesses, community organizations, city officials, airport users/tenants, and aviation organizations. As a component of the regional, state, and national aviation systems, APV is of importance to both state and federal agencies responsible for overseeing the air transportation system.

To assist in the development of the master plan, a Planning Advisory Committee (PAC) has been established to act in an advisory role. PAC members will meet up to four times at designated points during the study to review study materials and provide comments to help ensure that a realistic, viable plan is developed.

Draft working paper materials will be prepared at various milestones in the planning process. The working paper process allows for timely input and review during each step within the master plan to ensure that all issues are fully addressed as the recommended program develops.

A series of three open-house public information workshops is also planned as part of the study coordination and outreach efforts. Workshops are designed to allow all interested persons to become informed and provide input concerning the master plan process. Notices of meeting times and locations are advertised through local media outlets. All draft working papers, reports, meeting notices, and materials will be made available to the public on a study-specific website: <https://applevalley.airportstudy.net/>.

SWOT ANALYSIS

A SWOT analysis is a strategic business planning technique used to identify **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats associated with an action or plan. The SWOT analysis involves identifying an action, objective, or element, and then identifying the internal and external forces that are positively and negatively impacting that action, objective, or element in a given environment. A SWOT analysis was conducted at the first PAC meeting (June 18, 2023), the findings of which are summarized in **Table iA**.

Table iA APV SWOT Analysis		
STRENGTHS	<ul style="list-style-type: none"> Highly capable primary runway capable of serving multiple categories of users/demand groups. 	<ul style="list-style-type: none"> Fuel services.
	<ul style="list-style-type: none"> Favorable land use zoning around the airport. 	<ul style="list-style-type: none"> Presence of a crosswind runway.
	<ul style="list-style-type: none"> Air quality board is a constructive partner to airports. 	<ul style="list-style-type: none"> Vacant land around the airport.
	<ul style="list-style-type: none"> Supportive partnerships both on and off airport. 	<ul style="list-style-type: none"> Terminal building and restaurant.
	<ul style="list-style-type: none"> Major economic contributor. 	<ul style="list-style-type: none"> Relatively clear airspace.
	<ul style="list-style-type: none"> APV is the centerpiece of the North Apple Valley Specific Plan. 	<ul style="list-style-type: none"> CSA 60 tax base makes APV self-sufficient.
WEAKNESSES	<ul style="list-style-type: none"> Hangar availability. 	<ul style="list-style-type: none"> Crosswind runway closed at night.
	<ul style="list-style-type: none"> Lack of transit, Uber, Taxis. 	<ul style="list-style-type: none"> Income levels don't support high demand.
	<ul style="list-style-type: none"> Infrastructure funding. 	<ul style="list-style-type: none"> Other competing airports in the region.
	<ul style="list-style-type: none"> Certain aging infrastructure (Rwy 8-26). 	<ul style="list-style-type: none"> Lack of a strong business community.
	<ul style="list-style-type: none"> Lack of actual operations counts. 	<ul style="list-style-type: none"> Lack of instrument approach to Rwy 36.
	<ul style="list-style-type: none"> Distance from fire safety (5 miles/15 min. drive). 	<ul style="list-style-type: none"> Lack of dedicated helicopter parking pads.
	<ul style="list-style-type: none"> Overlapping runway safety areas. 	<ul style="list-style-type: none"> Access roads in poor condition.
OPPORTUNITIES	<ul style="list-style-type: none"> Improved highway/roadway access. 	<ul style="list-style-type: none"> Minimum development standards (fire safety).
	<ul style="list-style-type: none"> AAM/eVTOL, electric charging stations. 	<ul style="list-style-type: none"> More light industrial businesses.
	<ul style="list-style-type: none"> Non-Aeronautical development opportunities for more revenue. 	<ul style="list-style-type: none"> Improved marketing potential.
	<ul style="list-style-type: none"> FAA funding reauthorization/BIL funding opportunities. 	<ul style="list-style-type: none"> Growth in business aviation (Part 135, 91k).
	<ul style="list-style-type: none"> Airport drainage plan. 	<ul style="list-style-type: none"> Sustainable aviation fuel.
	<ul style="list-style-type: none"> Taking advantage of area events like King of the Hammers for potential partnerships. 	<ul style="list-style-type: none"> Improved security/fencing.
	<ul style="list-style-type: none"> Expansion of hangar development. 	<ul style="list-style-type: none"> Growing population will increase demand for air services.
	<ul style="list-style-type: none"> 20 million s.f. of industrial development in next 5-7 years. 	<ul style="list-style-type: none"> Undeveloped airport land available to meet growing demand.
THREATS	<ul style="list-style-type: none"> Off airport development of incompatible land uses. 	<ul style="list-style-type: none"> Reduced funding availability; inflation.
	<ul style="list-style-type: none"> Local planning agency should coordinate with airport on development proposals to ensure compatibility. 	<ul style="list-style-type: none"> Evolving FAA standards.
	<ul style="list-style-type: none"> Long term drought prevents growth. 	<ul style="list-style-type: none"> State regulations that make it challenging to operate (EV planes).

Source: Compiled from first planning advisory committee meeting on June 18, 2023.