

WICKENBURG MUNICIPAL AIRPORT

FINAL

Environmental Assessment for Proposed Mid-Field Aircraft Parking Apron



APRIL 2011

WICKENBURG MUNICIPAL AIRPORT
Wickenburg, Arizona

Final
ENVIRONMENTAL ASSESSMENT
For Proposed Mid-Field Aircraft Parking Apron

Prepared For: Town of Wickenburg, Arizona

Also, Prepared For: Federal Aviation Administration

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

Responsible FAA Official

Date

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Chapter One

PURPOSE AND NEED

Chapter One

PURPOSE AND NEED

Environmental Assessment
Wickenburg Municipal Airport

1.1 INTRODUCTION

Wickenburg Municipal Airport is located in Maricopa County, Arizona, three miles west of the Town of Wickenburg's central business district. As shown on **Exhibit 1A**, the Town of Wickenburg is located approximately 50 miles northwest of Phoenix, Arizona. The Town of Wickenburg is the airport owner/sponsor and oversees airport operations as well as the development and maintenance of airport facilities.

Over the past five to ten years, numerous improvements have been undertaken at Wickenburg Municipal Airport to meet aircraft design standards and provide an aviation facility that meets the needs of the community. Major improvements undertaken include the extension of Runway 5-23, the relocation of Taxiway A, and the construction of aircraft hangar facilities. These improvements, depicted on **Exhibit 1B**, combined, have reduced the amount of aircraft parking apron, which has proven problematic during periods of heavy airport use. The decrease in available airport surface parking was anticipated during the preparation of the 2003 Wickenburg Municipal Airport Master Plan (Master Plan) and alternatives for the development of additional parking areas were developed.

This EA will evaluate the development of additional aircraft parking and storage areas by first outlining the project purpose and need (Chapter One), followed by an evaluation of the alternatives for the proposed aircraft parking and storage areas (Chapter Two). The EA will then present a discussion of existing environmental resources (Chapter Three), concluding with a discussion of the effect of the proposed project on identified environmental resources and means to mitigate any potential negative environmental consequences (Chapter Four).

1.2 PROPOSED ACTION

The Town of Wickenburg, as airport sponsor, proposes the following:

- Construct an approximately 30,000 square-yard (750 feet by 350 feet) midfield aircraft parking apron on the south side of Runway 5-23. The amount of apron space provided per aircraft will be determined based on the requirements of the airport's current critical aircraft, which is designated as airport reference code (ARC) B-II aircraft.¹ It is estimated the apron will accommodate a maximum of 27 aircraft parking spaces.
- Construct an automobile access road connecting the existing access road to the proposed midfield apron. The access road will be equipped with a security gate to restrict access to only those with permission to enter the south side hangar and apron areas.

The airport apron and access road (Proposed Action), as depicted on **Exhibit 1C**, will be located on airport property and will provide transient and based aircraft parking at the airport. As stated in the Master Plan and indicated on the Airport Layout Plan, Wickenburg Municipal Airport is designated as an ARC B-II airport. Therefore, the improvements will be designed to accommodate B-II aircraft.

Additionally, as noted on **Exhibit 1C**, commercial lease parcels are planned for the area between the access road and the proposed apron. These parcels will be available for lease from the airport to private developers. During site preparation, this area will be graded; however, no construction will occur on this portion of the site during construction of the proposed improvements.

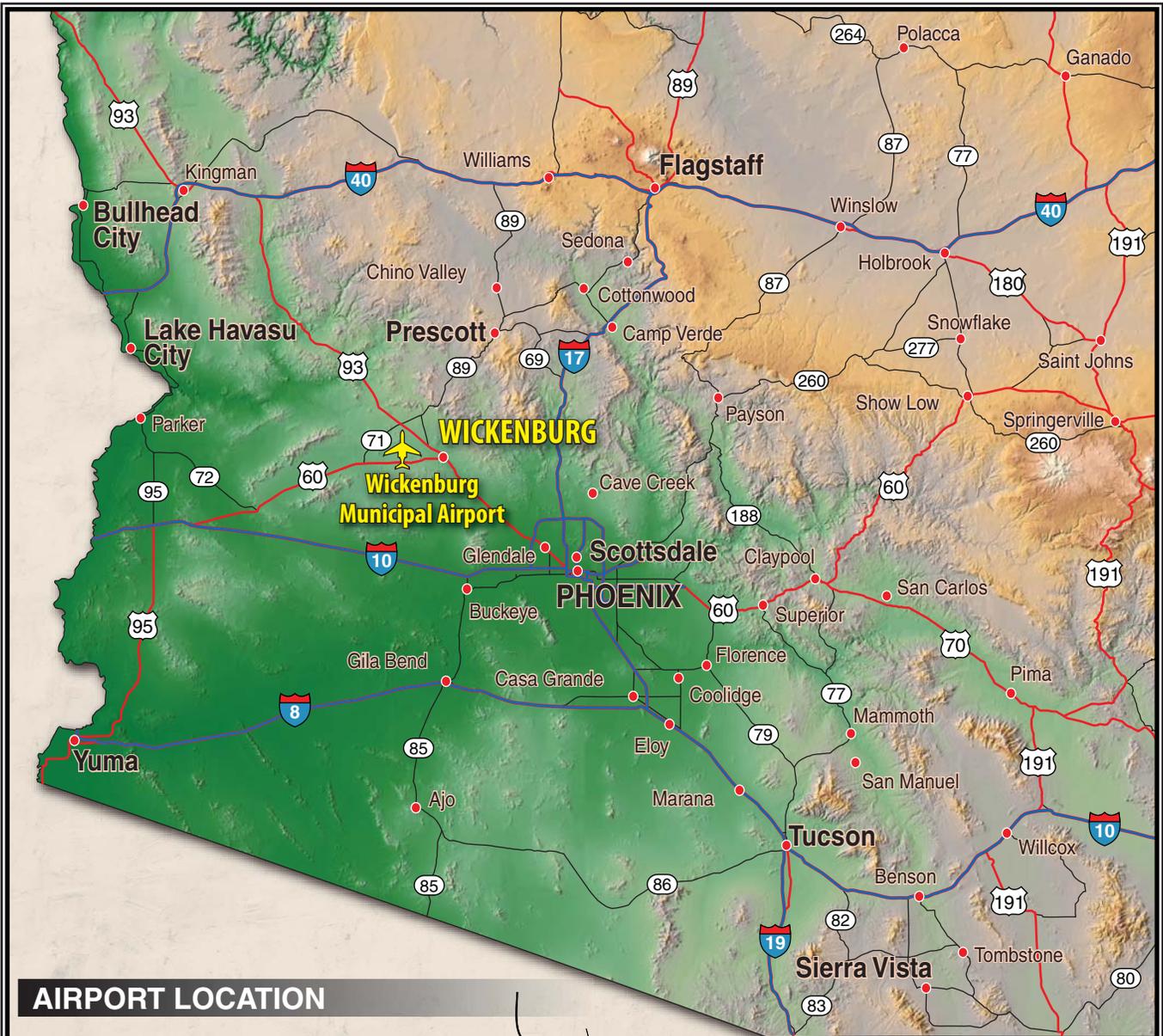
1.3 PURPOSE AND NEED FOR PROPOSED ACTION

The purpose of the proposed airport improvements is to replace aircraft parking areas lost during the construction of recent airport improvements. Recent upgrades undertaken at the airport to meet ARC B-II design standards resulted in a loss of 4,050 square yards of aircraft parking apron and 40 aircraft tie downs. Additionally, the development of two 10-unit T-hangar buildings resulted in the further loss of 11,850 square yards of aircraft parking apron. The impact of these projects is depicted on **Exhibit 1B**.

The need for the proposed improvements is supported by an existing aircraft parking waiting list, tie down use patterns, and the findings of the 2003 Airport Master Plan. The existing T-hangars on the airport are owned by a private company and leased to airport tenants. Currently, all of the hangar units are occupied. Based on an interview with the T-hangar operator, 15 aircraft owners are on a waiting list for hangars as they become available. Until hangar facilities become available, these aircraft are stored on the apron area, which limits available space for transient aircraft.

The use of the tie down apron areas varies on a seasonal basis. Between the months of October and May, the airport experienced increased demand for the currently limited tie down space. According to the airport manager, the airport has experienced extended periods when all tie downs are leased and limited space is available for transient aircraft.

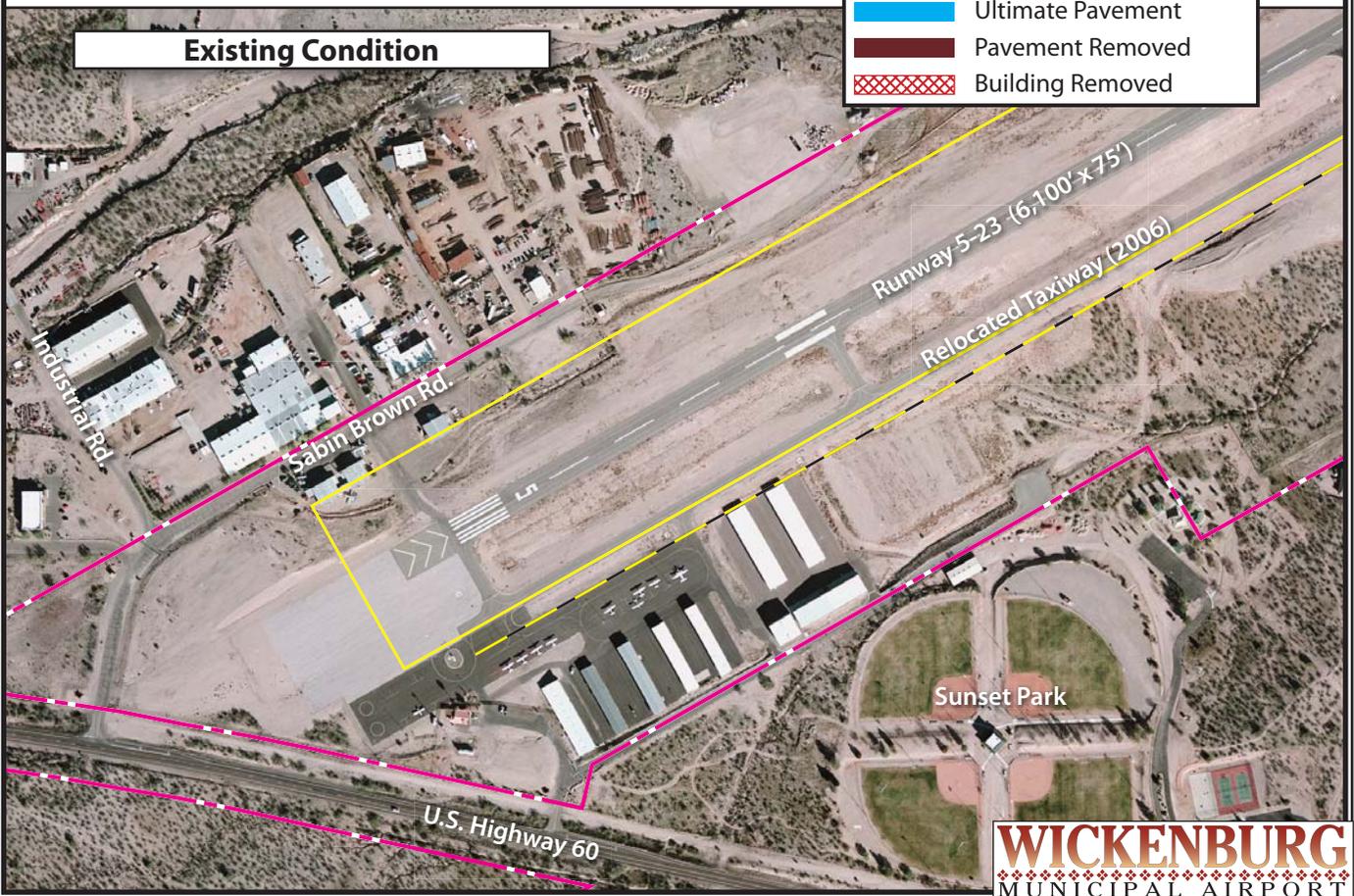
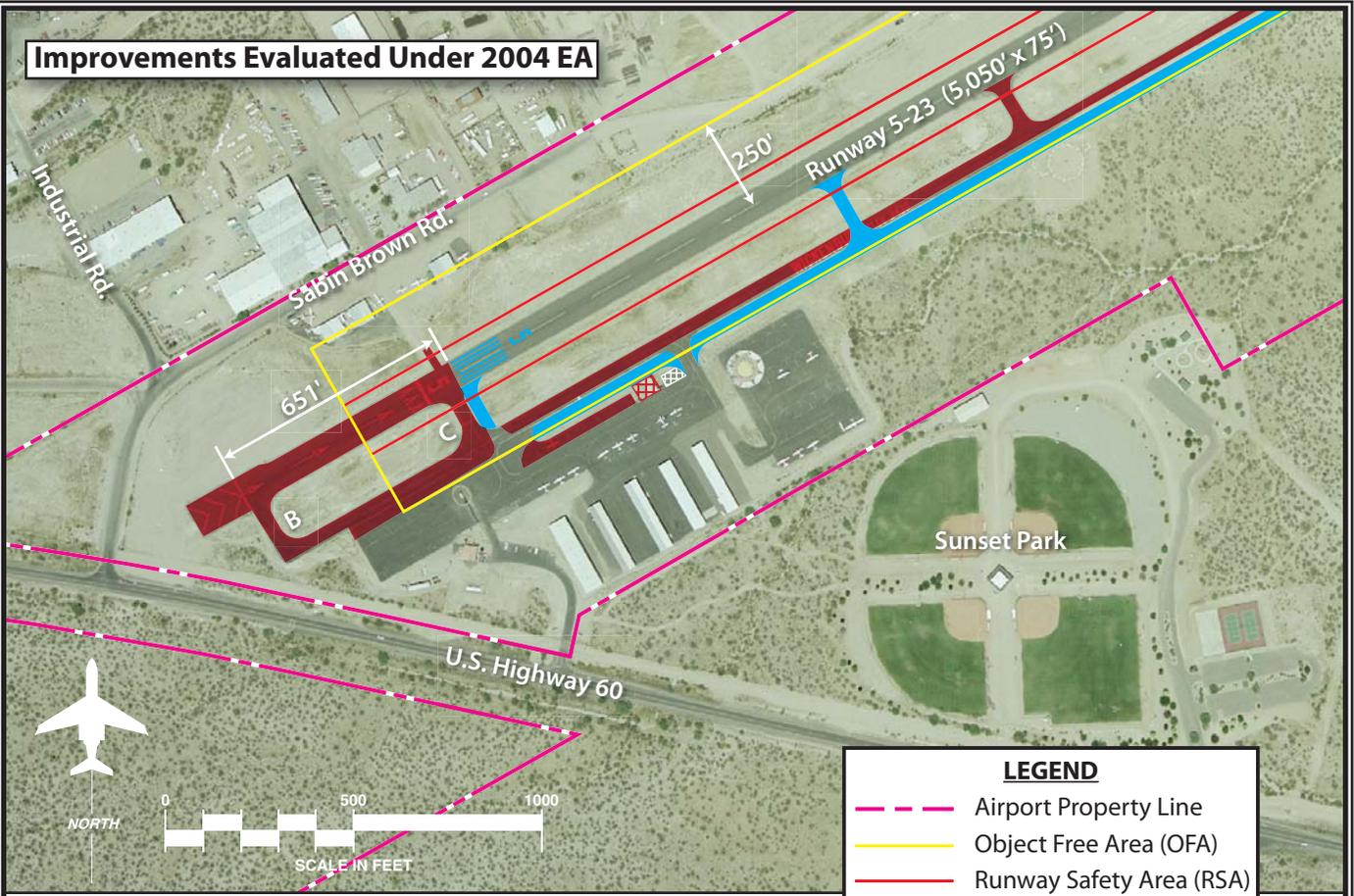
¹ Refer to Appendix B for information regarding FAA ARC designations, including the process of determining an airport's ARC and the resulting design standards.

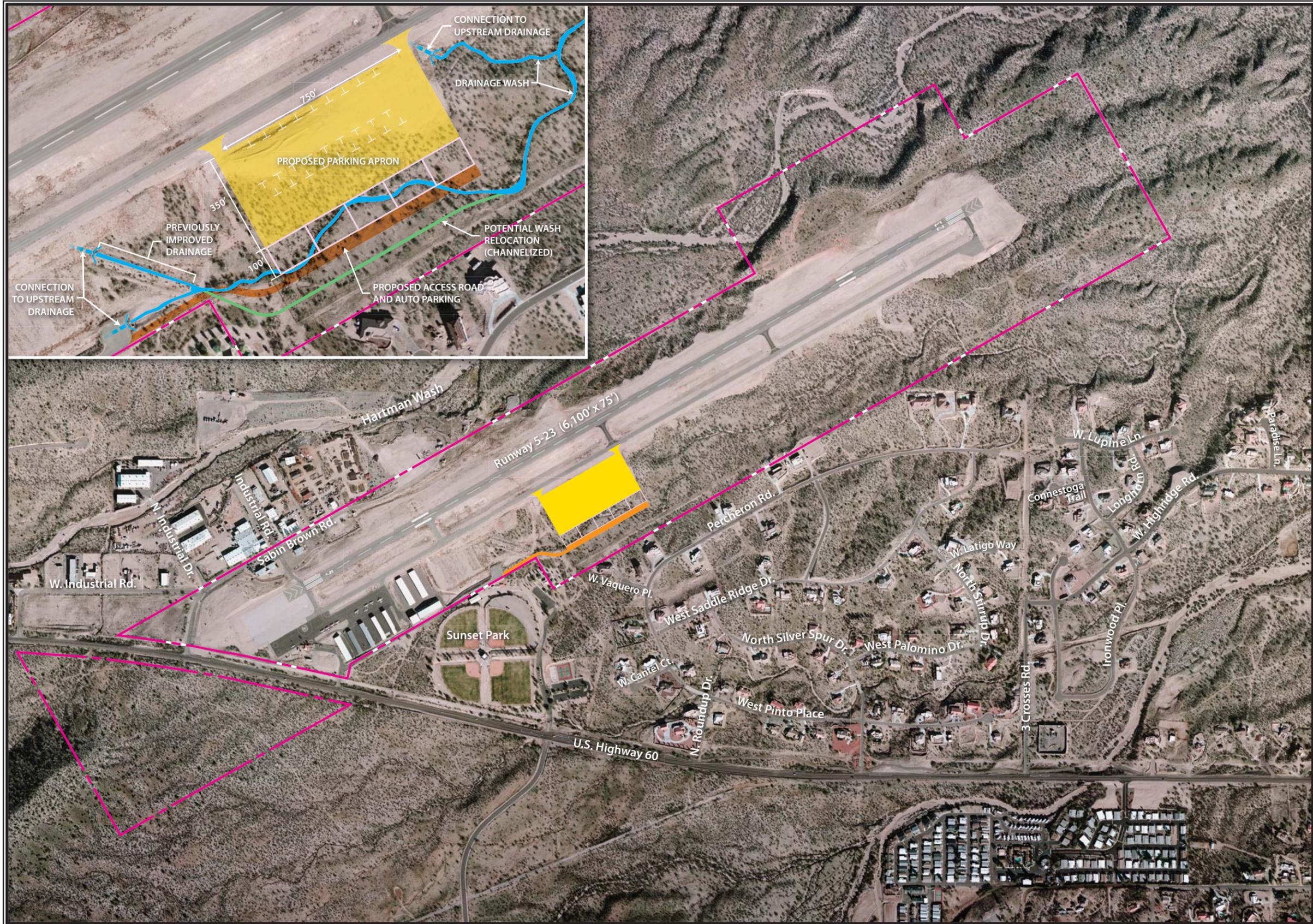


AIRPORT LOCATION

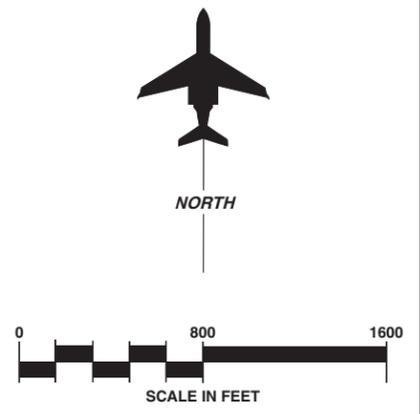


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- LEGEND**
- Airport Property Line
 - Proposed Parking Apron
 - Proposed Access Road
 - Commercial Lease Parcels



WICKENBURG
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The 2003 Airport Master Plan further supports the need for additional apron, tie downs, and hangar areas. As described in the table, based on the Master Plan operational thresholds, additional apron area, tie down areas, conventional hangars should be provided. As discussed in Section 1.3.1 below, forecast operations at Wickenburg Municipal Airport exceed the short term threshold and are approaching the intermediate need threshold outlined in the Master Plan; therefore, additional aircraft parking apron space is needed at the airport.

TABLE 1A
Summary of Apron, Tie Down and Hangar Space
Wickenburg Municipal Airport

	Available	Master Plan Recommended Short Term Need	Master Plan Recommended Intermediate Need
Master Plan Operational Threshold	--	39,900	50,000
Apron (square yards)	16,800	31,200	32,600
Tie Downs	22	22	40
Conventional Hangars	4	8	11
T-Hangars	44	36	47

1.3.1 Aviation Forecast

Wickenburg Municipal Airport is classified as a general aviation airport within the *National Plan of Integrated Airport Systems 2009-2013*. Forecasts prepared during the airport’s Master Plan support the airport maintaining this role during the forecast horizons. **Table 1A** presents a summary of the forecasts from the *Terminal Area Forecasts (TAF)* prepared by FAA. As indicated in the table, the number of operations at the airport is forecast to increase from the existing condition (2010) to the year of implementation (2012). For the 2012 and 2017 Proposed Action conditions, an increase of one percent above the TAF is assumed. The one percent increase accounts for additional aircraft that can use the airport due to the increase in tie down and apron areas. The tie downs will be designed for ARC B-II aircraft which currently have limited tie down space available for use.

TABLE 1B
Aviation Forecast Summary

	2010 (Existing Condition) ¹	2012 ²		2017 ²	
		No Action	Proposed Action	No Action	Proposed Action
Itinerant	28,320	19,600	19,796	19,600	19,796
Local	12,000	28,800	29,088	28,800	29,088
Total	40,320	48,400	48,884	48,400	48,884
Based Aircraft	50	51		51	

Source: ¹Interview with Airport Manager, ²FAA *Terminal Area Forecast (TAF)*, Airport 5010 Form

Note: As stated in FAA Order 5050.4B, forecasts used in airport environmental analyses should be consistent with the TAF. This is described as being within 10 percent of the TAF for the 5-year analytical period and within 15 percent for the 10-year analytical period. As noted in the table above, forecasts for this project are consistent with the TAF.

1.4 REQUESTED FEDERAL ACTIONS

The requested approval action includes conditional approval of the sponsor's airport layout plan (ALP) reflecting the proposed midfield apron and the approval of further processing of an application for federal assistance under the Airport Improvement Program (AIP) to construct the apron and access road. The specific federal action under consideration through this EA includes:

- Unconditional approval of the portion of the ALP that depicts the near-term proposed improvements pursuant to Title 49, USC § 40103(b), 44718 and 47107(a)(16), and Title 14, Code of Federal Regulations (CFR) Part 77 and Part 157.
- Determination of eligibility for federal assistance for the near-term development projects under the Federal grant-in-aid program authorized by the *Airport and Airway Improvement Act of 1982*, as amended (Title 49, USC § 47101 et. seq.).
- Approval of further processing of an application for federal assistance for near-term eligible projects using federal funds from the Airport Improvement Program, as shown on the ALP.
- Determine under Title 49, USC § 44502(b), the proposed aircraft parking apron, access road, and drainage improvements at Wickenburg Municipal Airport are reasonably necessary for use in air commerce or in the interests of national defense.
- Continued close coordination with the City of Wickenburg and appropriate FAA program offices, as required, to maintain aviation and airfield safety during construction pursuant to Title 49, USC § 44706.

1.5 DOCUMENTATION REQUIREMENTS AND STANDARDS

This EA has been prepared in accordance with the requirements of Section 102(2)(c) of the *National Environmental Policy Act (NEPA) of 1969* (PL 91-190, Title 42, USC § 4321 et. seq.) and Title V of the *Airport and Airway Improvement Act of 1982*, as amended. NEPA stipulates that projects funded by the federal government, in part or whole, require an assessment of their environmental consequences. The environmental consequences of maintaining the existing airport facility will be evaluated as the No Action alternative. The environmental consequences of the proposed airport improvements will be evaluated as the Proposed Action.

The FAA is the lead federal agency for NEPA compliance for this document. The format and subject matter included within this report conform to the requirements and standards set forth by the FAA as contained within FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.

This EA incorporates by reference all, or portions of, other technical documents that are a matter of public record specific to the proposed midfield apron project. These documents, including the *2003 Wickenburg Municipal Airport Master Plan*, either relate to the Proposed Action alternative or provide additional information concerning the environmental setting of the Proposed Action.



Chapter Two

ALTERNATIVES

Chapter Two

ALTERNATIVES

Environmental Assessment
Wickenburg Municipal Airport

The objective of this alternatives analysis is to identify reasonable alternatives which accommodate the purpose and need identified in Chapter One. Once identified, each alternative is evaluated in terms of its ability to satisfy the objectives of the purpose and need for the project and its potential for an effect on the surrounding environment. The results of this evaluation are to determine which alternatives will be considered reasonable and practicable, thereby warranting further consideration. The alternatives under consideration are more closely evaluated in Chapter Four of this document.

Under the *National Environmental Policy Act (NEPA)*, as stated in the Federal Aviation Administration (FAA) Order 1050.1E, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, alternatives can be eliminated from further consideration when the alternatives do not fulfill the purpose and need for the action or cannot be reasonably implemented. In general, if an alternative's cost would likely exceed the benefits, or when the environmental consequences are excessive, particularly when compared to other alternatives which do meet the purpose and need, that alternative can be eliminated from further consideration. The number of alternatives evaluated should be commensurate with the level of environmental impacts.

Alternatives that do not meet the purpose and need stated in Chapter One, or are deemed to be not reasonable, will be eliminated and will not be discussed further in this Environmental Assessment (EA), with the exception of the No Action alternative. The provisions of the Council on Environmental Quality (CEQ), Title 40, Code of Federal Regulations (CFR) Part 1502.14(c), require the evaluation of the No Action alternative, regardless of whether it meets the stated purpose and need or is reasonable to implement.

2.1 ALTERNATIVES EVALUATED BUT NOT CARRIED FORWARD FOR FURTHER ANALYSIS

A two-tier screening process was used to evaluate project alternatives. The first tier screen evaluated whether the alternative could provide additional aircraft parking areas for existing users of Wickenburg Municipal Airport, including larger ARC B-II aircraft. The second tier screen level evaluated whether the alternative would conflict with potential future development of the airport, as depicted on the airport layout plan (ALP).

The following alternatives were initially evaluated, but rejected during the preliminary screening process using the previously discussed criteria.

Construction of the apron at a different airport. As discussed in Chapter One, the purpose of the project is to replace apron area lost as a result of the runway, taxiway, and hangar development projects. Providing additional apron at another airport will not meet the needs of the existing users of Wickenburg Municipal Airport. Additionally, the two closest public use airports to Wickenburg Municipal Airport are Buckeye Municipal Airport in Buckeye, Arizona and Ernest A. Love Field in Prescott, Arizona. By road, these airports are 50 and 70 miles away, respectively. This distance places them outside of the 30-mile service area for Wickenburg Municipal Airport. This alternative does not meet the stated project purpose and need; therefore, it was eliminated from further consideration.

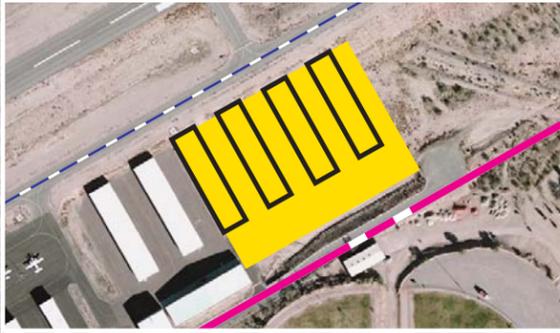
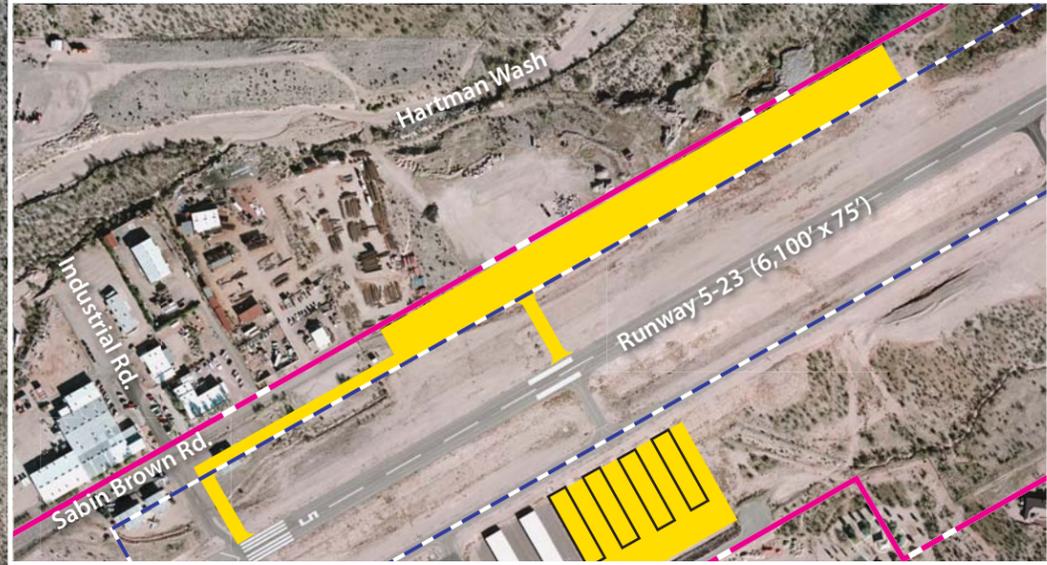
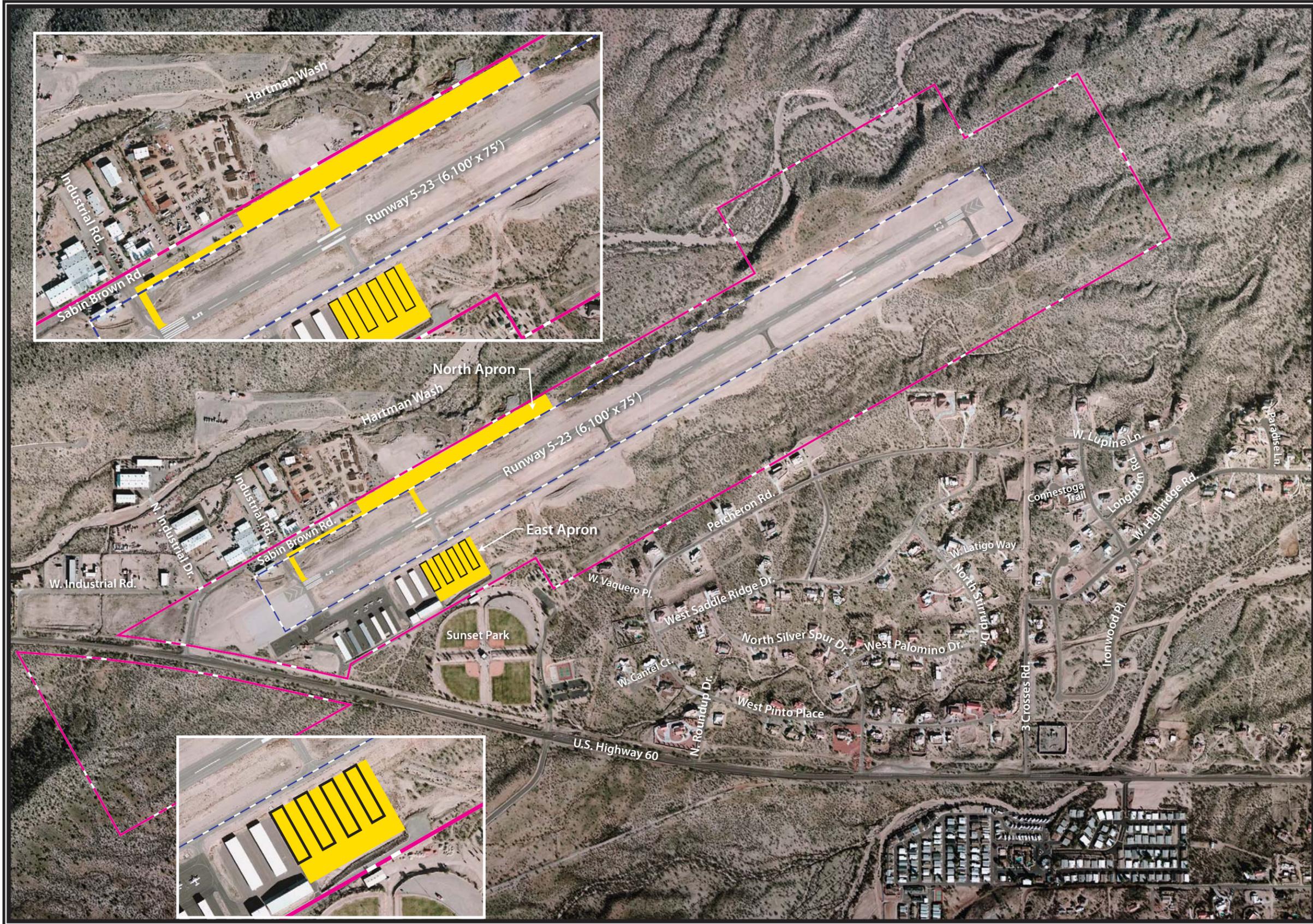
South Apron Expansion. Consideration was given to expanding the apron in the areas located east of the two 10-unit T-hangars. As depicted on **Exhibit 2A**, the ALP indicates this area will be developed with T-hangars, similar to those to the west, and includes space for only nine tie down positions. Due to the planned T-hangar development on this site, it has been eliminated from further consideration as it is not consistent with the long range plans for the airport.

North Apron Construction. Consideration was also given to constructing the apron on the north side of the runway. As indicated on **Exhibit 2A**, the runway object free area limits the developable area to a depth of 150 feet. To provide 30,000 square yards of apron space, while keeping the apron on airport property, the dimensions of the apron would be 150 feet by 1,750 feet. To provide access to this site, an additional vehicular security entrance would need to be added on the north side of the airport and a parking area would need to be constructed. Additionally, placing the apron on the north side of the runway would increase travel distance to the terminal area and fueling facilities located on the south side of the runway. Finally, aircraft accessing the south apron facilities from the north apron would be required to cross an active runway. As discussed in AC 5300-13, *Airport Design*, the airfield taxiway system should be designed to minimize runway crossings. The shape and location of the north apron location would decrease airfield efficiency and would introduce runway crossings to the airfield. Therefore, this alternative has been eliminated from further consideration.

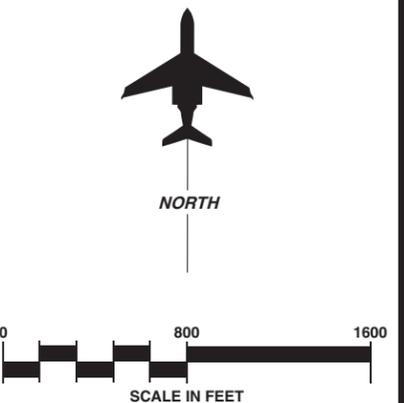
Exhibit 2A depicts the general location of the South Apron and North Apron alternatives eliminated from further consideration.

2.2 PROPOSED ACTION ALTERNATIVE

As discussed in Chapter One, the Town of Wickenburg proposes to construct an approximately 30,000 square-yard (750 feet by 350 feet) midfield aircraft parking apron and associated access road at Wickenburg Municipal Airport. The site of the proposed project is on the south side of Runway 5- outside of the safety areas associated with the runway and parallel taxiway. The apron will include 27 aircraft parking spaces for use by based and transient aircraft. Landside vehicle access will be provided by an



- LEGEND**
- - - Airport Property Line
 - - - Object Free Area (OFA)
 - Parking Apron Alternative Eliminated from Further Consideration



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extension of the existing access road located on the south side of the airport. As discussed in Chapter One, commercial lease parcels are planned for the area between the access road and the proposed apron. These parcels will be available for lease from the airport to private developers. During site preparation, this area will be graded; however, no construction will occur on this portion of the site during construction of the proposed improvements.

As indicated on **Exhibit 2B**, construction of the proposed midfield apron will require the relocation and channelization of a wash located within the project site. Based on the preliminary jurisdictional delineation included in **Appendix D**, the wash is within the jurisdiction of the U.S. Army Corps of Engineers as a Water of the United States. The proposed impact of 0.31 acres of this wash is regulated under Section 404 of the *Clean Water Act*. Impacts to the wash would result from the construction of culverts beneath the apron access road, construction of the apron, and from stream channelization to relocate the wash south of the apron. An impact to the wash requires permit coverage under U.S. Army Corps of Engineers Nationwide Permit Number 39, which requires pre-construction notification.

Statutory or regulatory requirements applicable to this alternative include the following:

Airport and Airway Improvement Act of 1982, as amended
Airport Noise and Capacity Act of 1990
Archaeological and Historic Preservation Act of 1974
Aviation Safety and Noise Abatement Act of 1979
Aviation Safety and Capacity Expansion Act of 1990
Clean Air Act and Amendments
Coastal Zone Management Act
Comprehensive Environmental Response Compensation Liability Act (CERCLA)
Department of Transportation Act of 1966, as amended
Endangered Species Act of 1970
Executive Order 11988 - Floodplain Management
Executive Order 11990 - Protection of Wetlands
Executive Order 12898 - Environmental Justice
Farmland Protection Policy Act
Federal Aviation Act of 1958, as amended
Fish and Wildlife Coordination Act
Land and Water Conservation Fund Act of 1965
Magnuson-Stevens Fishery Conservation and Management Act
National Environmental Policy Act of 1969
National Historic Preservation Act of 1966
President's Council on Environmental Quality (Title 40, CFR Parts 1500-1508)
Resource Conservation and Recovery Act (RCRA)
Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
Vision 100 – Century of Aviation Act of 2003
Water Pollution Control Act, as amended by the Clean Water Act of 1977
Water Quality Assurance Revolving Fund (WQARF)
Wild and Scenic Rivers Act, as amended

- Modification of the airport's existing operation-related Arizona Pollutant Discharge Elimination System (AZPDES) General Permit Number 050000 to reflect the additional impervious surfaces at the airport and changes to the airport drainage.
- Compliance with AZPDES Permit Number 150000 for construction activities.
- Compliance with the requirements of the *Migratory Bird Treaty Act* during construction.
- Section 404 of the *Clean Water Act* which requires a Nationwide Permit Number 39.

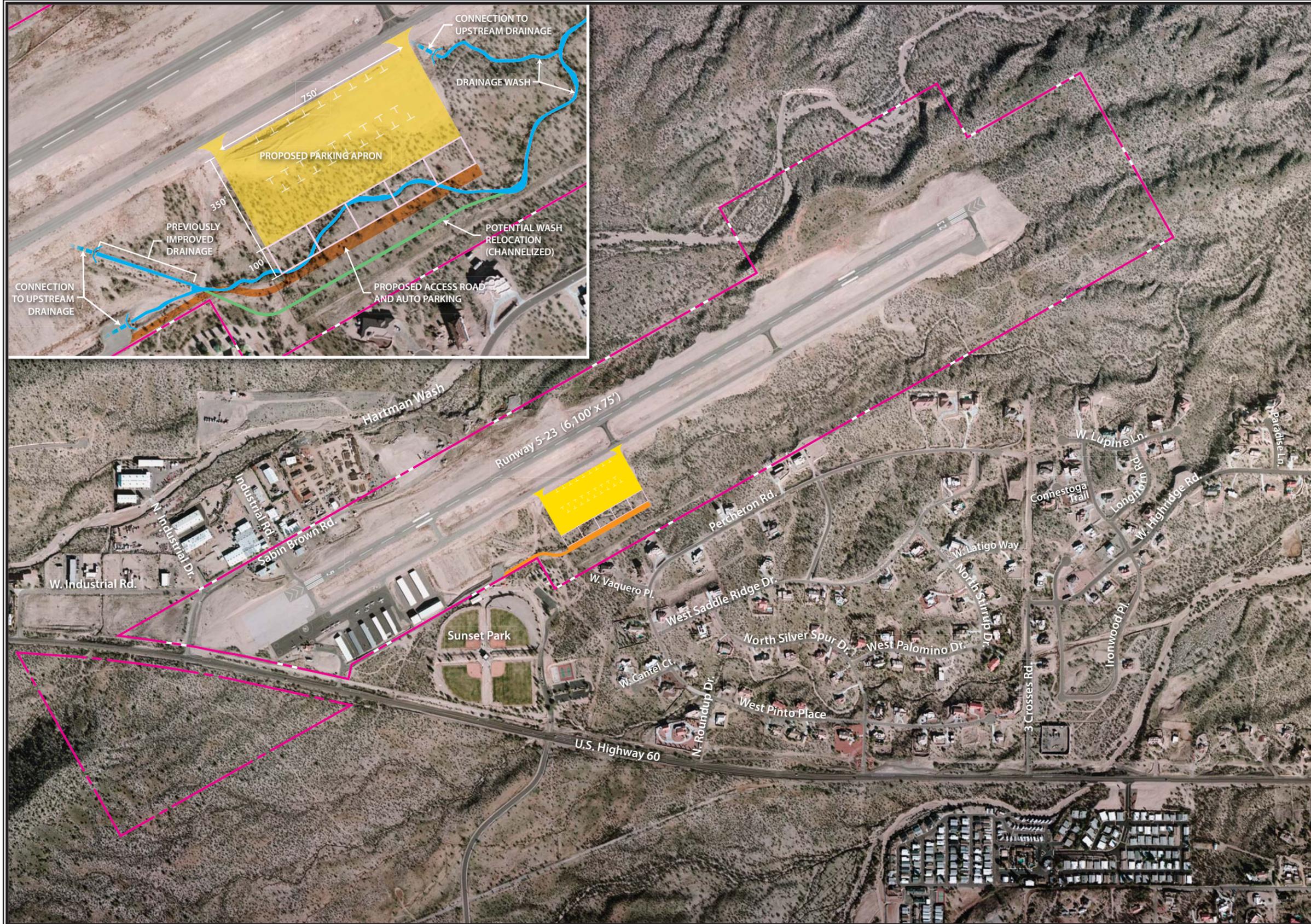
The midfield apron will be designed to allow for the safe and efficient operation of transient and based airport. In accordance with the airport layout plan, the dimensions of the improvements would be designed to accommodate airport reference code (ARC) B-II aircraft at Wickenburg Municipal Airport. The

midfield apron would include 27 tie down positions. This alternative fully meets the purpose and need of the project; therefore, it will be carried through the EA for detailed analysis as the Proposed Action.

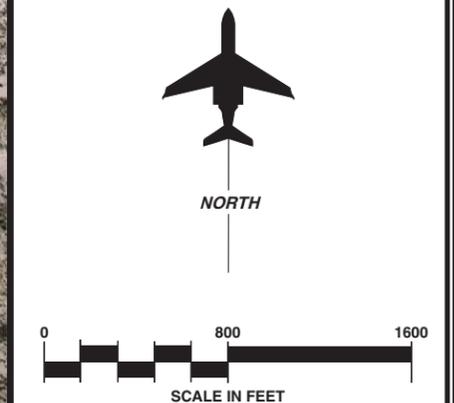
2.3 NO ACTION ALTERNATIVE

The No Action alternative considers retaining the airfield in its present condition. This will not result in the construction of additional apron space and aircraft parking capacity would remain as it is today. The primary result of this alternative is that the airport will be limited in the amount of available aircraft parking apron space for existing and transient aircraft. The amount of space for ARC B-II Aircraft operating at the airport would be limited due to separation requirements which may result in a reduction in safety and efficiency in the existing apron areas.

The No Action alternative does not meet the identified purpose and need for the facility, as identified in Chapter One. While the No Action alternative does not meet the purpose and need, in accordance with Title 40, CFR Part 1502.14(d), it is further analyzed with regard to its potential environmental impact in Chapter Four of this environmental document.



- LEGEND**
- Airport Property Line
 - Proposed Parking Apron
 - Proposed Access Road
 - Commercial Lease Parcels



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Chapter Three

AFFECTED ENVIRONMENT

Chapter Three

AFFECTED ENVIRONMENT

Environmental Assessment
Wickenburg Municipal Airport

The purpose of this chapter is to identify the background information that describes the existing environment at Wickenburg Municipal Airport.

3.1 AIRPORT BACKGROUND AND FACILITIES

As depicted on Exhibit 1A in Chapter One, Wickenburg Municipal Airport is located on the west side of the Town of Wickenburg. Built in 1968, the airport has undergone numerous improvements resulting in the airport's current configuration as a single runway, general aviation airport. The Town of Wickenburg is located approximately 50 miles northwest of the Phoenix metropolitan area, near the northern border of Maricopa County. The Town lies in the foothills of the Bradshaw Mountains along the banks of the Hassayampa River. The Town of Wickenburg, whose growth was spurred by gold prospectors in the late 1800s, was incorporated in 1909.

3.1.1 Airport Facilities

Facilities at an airport can be divided into two distinct categories: airside facilities and landside facilities. Airside facilities include those directly associated with aircraft operations. Landside facilities include those necessary to provide an interface between surface and air transportation and support aircraft servicing, storage, maintenance, and operational safety.

- AIRSIDE FACILITIES

Airside facilities generally include, but are not limited to, runways, helipads, taxiways, airfield lighting, and navigational aids. Wickenburg Municipal Airport has one runway, as shown on **Exhibit 3A**. Runway 5-23 is 6,100 feet long by 75 feet wide. This runway is oriented northeast to southwest and is constructed of asphalt. Runway 1-19 is served by a full-length parallel taxiway, designated Taxiway A. Additional information regarding the airside facilities can be found in **Table 3A**.

TABLE 3A
Airside Facility Data
Wickenburg Municipal Airport

	Runway 5-23
Runway Length (feet)	6,100
Runway Width (feet)	75
Runway Surface Material	Asphalt
Condition	Good
Runway Load Bearing Strength (pounds): Single Wheel Loading (SWL)	16,000
Runway Lighting	MIRL
Runway Marking	Non-precision
Taxiway Lighting	MITL on entrance/exit taxiways
Taxiway Marking	Centerline striping and hold positions
Approach Aids	PAPI-4 (Runway 5, Runway 23)
Visual Aids	Segmented Circle, Lighted Wind Cones, Rotating Beacon
Weather Aids	AWOS-III

MIRL - Medium Intensity Runway Lights
MITL - Medium Intensity Taxiway Lights
PAPI - Precision Approach Path Indicator
AWOS - Automated Weather Observation System

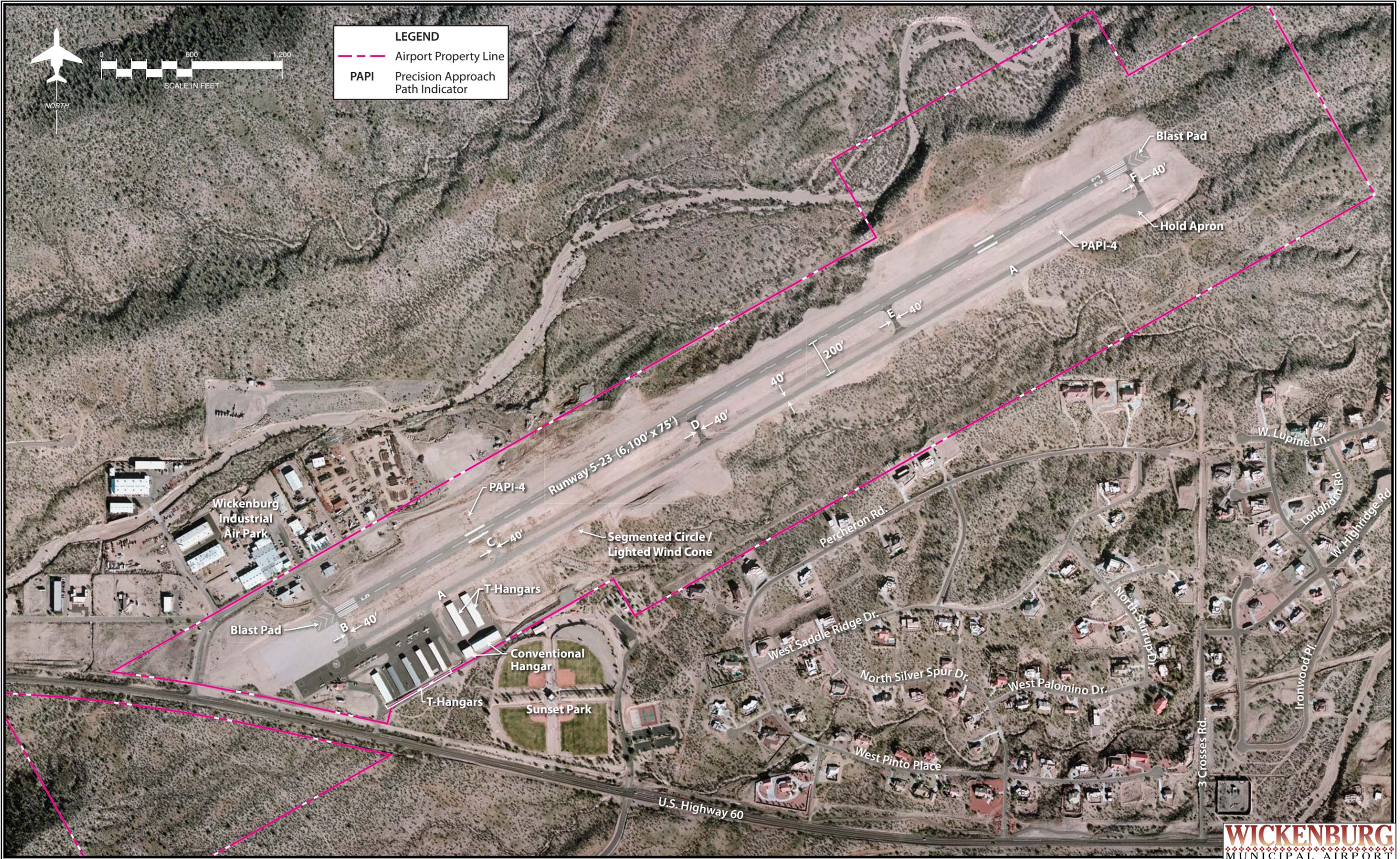
Source: Airport Facility Directory - Southwest U.S. (April 2010); FAA Form 5010-1, Airport Master Record

- LANDSIDE FACILITIES

Landside facilities are the facilities that support the aircraft and pilot/passenger handling functions. The primary landside facilities at Wickenburg Municipal Airport include the terminal, aircraft parking apron, hangar facilities, and fuel facilities. The Wickenburg Municipal Airport terminal building is located at the approach end of Runway 5. The terminal building includes a pilot lounge and houses control equipment for the various airport lighting and communications equipment. As discussed in Chapter One, the airport has approximately 33,650 square yards of available aircraft parking apron, including taxilanes. These areas are located adjacent to the terminal area. The airport has 53 hangar spaces, which includes 44 T-hangars and four conventional hangars that are privately owned and leased to airport users. The remaining five hangars are privately owned and occupied by the owners. Fuel storage and dispensing facilities at the airport are owned by the Town of Wickenburg. Fuel storage facilities include a 10,000 gallon low lead tank and a 12,000 gallon Jet-A tank. Fuel is dispensed through the fuel island located north of the terminal building.



LEGEND	
	Airport Property Line
	PAPI Precision Approach Path Indicator



3.2 LAND USE

- EXISTING LAND USE

As indicated on **Exhibit 3B**, the airport terminal facilities are located on the southern side of Runway 5-23 at the westernmost end of the airport. Several industrial land uses are located across the runway from the terminal area. This area is identified by the Town of Wickenburg as the Airport Industrial Park and includes several manufacturing and industrial facilities. Beyond the industrial park to the west is located the Black Mountain Ranch residential subdivision. The remaining land located north of the airport is undeveloped and includes Hartman Wash, an ephemeral drainage feature that runs along the northern airport property line.

The southern edge of the airport is bounded by U.S. Highway 60. As indicated on **Exhibit 3B**, much of this area is undeveloped. To the southeast of the terminal area is the Town of Wickenburg's Sunset Park which is a multi-use community park that includes ball fields and other recreation areas. To the east of Sunset Park is the Saddle Ridge West residential subdivision.

- FUTURE LAND USE

Future land use guidance for the areas surrounding Wickenburg Municipal Airport is outlined in the *Town of Wickenburg General Plan, 2003*. The future land use map included in the General Plan is shown on **Exhibit 3C**. The Wickenburg Municipal Airport property is designated as Public Facility in the *Wickenburg General Plan Update 2003*. As indicated on the exhibit, much of the area immediately adjacent to the airport is designated as Open Space/Trails Connectors. This designation includes areas for existing and planned parks, open space areas, and open space corridors/pathway systems. In addition to providing park spaces, the Open Space designation is intended to protect scenic views of the surrounding areas. The remaining portions of the area surrounding the airport are planned for development consistent with the existing land uses discussed previously, including industrial development on the north side of the airport, residential development to the east, and the public park to the south. The General Plan indicates that intensive land uses, such as industrial facilities, should be concentrated near the airport.

- LAND USE PLANNING POLICIES

Height and Hazard Zoning. Article 14-20, Section 14-20-11 of the Town of Wickenburg Land Use Code, specifies building height limitations in the vicinity of the airport. Specifically, building heights are limited to 20 feet within 500 feet of the runway centerline, including the area along the extended runway centerline 1,000 feet from each runway end. Beyond a distance of 1,000 feet, building heights must remain below an upward sloping 40:1 approach surface. This approach surface rises one foot for each 40-foot increment the approach surface extends from the beginning of the surface, which originates 200 feet from the runway end.

Public Airport Disclosure Map. In accordance with Arizona Revised Statute (ARS) 28-8486, the Town of Wickenburg has established a public airport disclosure map. This map is intended to assist property owners and prospective property owners with determining if their property is within a noise impact area or within an aircraft operational area (defined by the traffic pattern airspace). The public airport disclosure map for Wickenburg Municipal Airport is shown on **Exhibit 3D**. The map depicts the 60 DNL (day

night noise exposure level) noise exposure contour in accordance with ARS 28-8486. DNL is the metric currently accepted by the Federal Aviation Administration (FAA), Environmental Protection Agency (EPA), and the Department of Housing and Urban Development (HUD) as an appropriate measure of cumulative noise exposure. These three federal agencies have each identified the 65 DNL noise contour as the threshold of incompatibility for noise-sensitive land uses such as residential, places of worship, etc.

3.3 EXISTING ENVIRONMENT

This section provides background information on the existing natural and cultural environment within and surrounding Wickenburg Municipal Airport. Sources of this information include coordination received from various resource agencies and supplemental studies. Scoping letters requesting input regarding the existing natural and cultural environment of the project area and potential environmental effects of implementing the project were sent to federal, state, and local agencies. Additional information regarding the agency scoping process, including letters and responses, can be found in **Appendix C**. Field surveys conducted for this document include: an archaeological survey, a biological resources survey, and a jurisdictional waters survey.

Environmental resources (as described within Appendix A of FAA Order 1050.1E) which are not located within the project area include: Coastal Resources; Farmlands; Floodplains; hazardous materials, and Wild and Scenic Rivers. Information regarding Coastal Resources, Farmlands, Floodplains, and Wild and Scenic Rivers was gathered through internet research.

3.3.1 Natural Resources

- AIR QUALITY

The U.S. Environmental Protection Agency (EPA) has adopted air quality standards that specify the maximum permissible short-term and long-term concentrations of various air contaminants. The National Ambient Air Quality Standards (NAAQS) consist of primary and secondary standards for six criteria pollutants which include: Ozone (O₃), Carbon Monoxide (CO), Sulfur Dioxide (SO₂), Nitrogen Oxide (NO), Particulate matter (PM₁₀ and PM_{2.5}), and Lead (Pb). Various levels of review apply within both NEPA and permitting requirements. Potentially significant air quality impacts, associated with an FAA project or action, would be demonstrated by the project or action exceeding one or more of the NAAQS for any of the time periods analyzed.

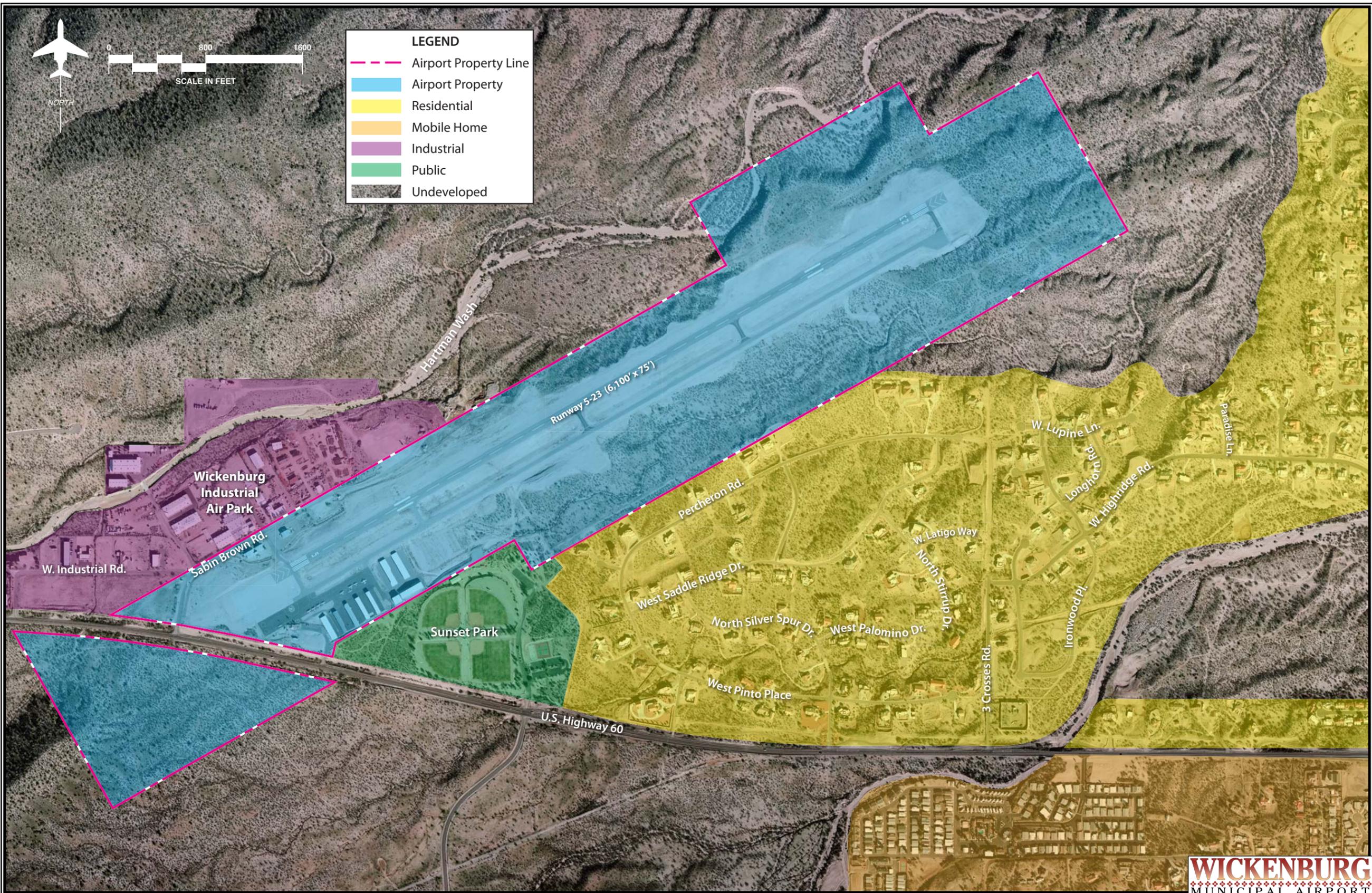
Wickenburg Municipal Airport is located in a portion of Maricopa County which is classified as an attainment area for all criteria pollutants according to the EPA's list of Currently Designated Attainment Areas for All Criteria Pollutants as published on June 5, 2009¹.

- FISH, WILDLIFE, AND PLANTS

Field surveys were conducted by SWCA Environmental Consultants (SWCA) in January 2010 to evaluate the potential for state and federally listed species to occur in the project area. The field survey findings

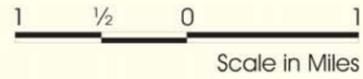
¹ <http://www.epa.gov/oar/oaqps/greenbk/anc13.html>, accessed on July 10, 2009

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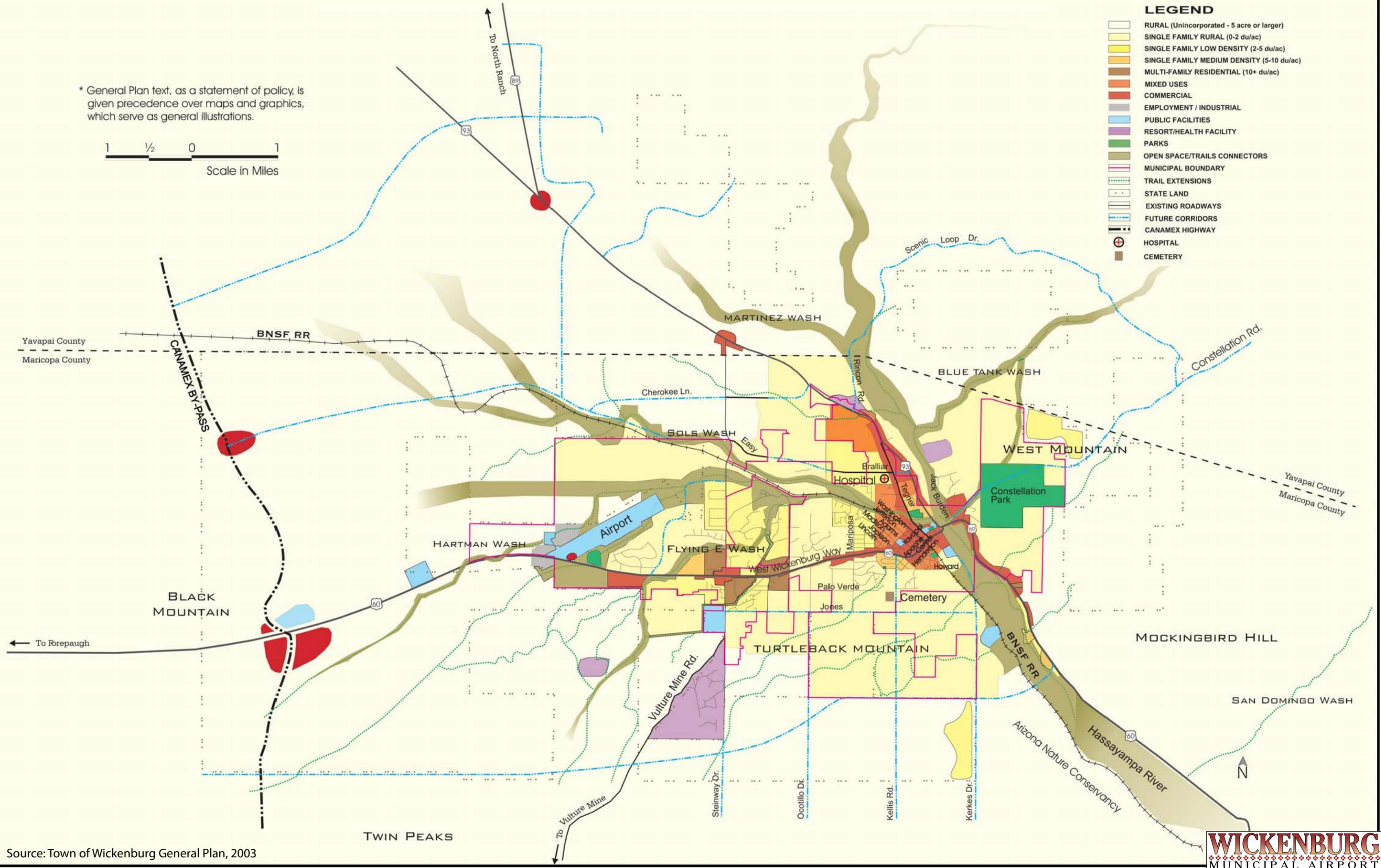


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* General Plan text, as a statement of policy, is given precedence over maps and graphics, which serve as general illustrations.

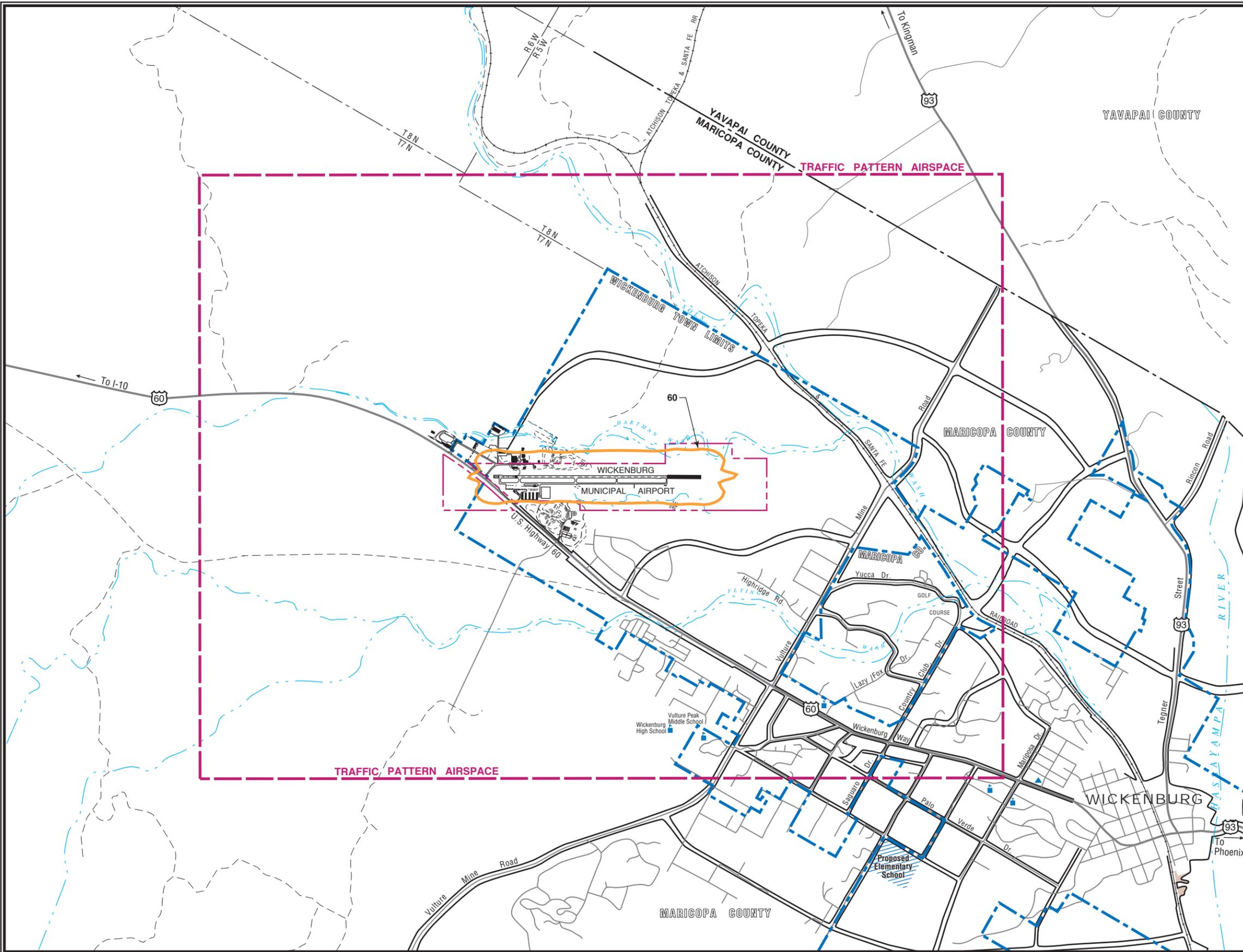


- LEGEND**
- RURAL (Unincorporated - 5 acre or larger)
 - SINGLE FAMILY RURAL (0-2 du/ac)
 - SINGLE FAMILY LOW DENSITY (2-5 du/ac)
 - SINGLE FAMILY MEDIUM DENSITY (5-10 du/ac)
 - MULTI-FAMILY RESIDENTIAL (10+ du/ac)
 - MIXED USES
 - COMMERCIAL
 - EMPLOYMENT / INDUSTRIAL
 - PUBLIC FACILITIES
 - RESORT/HEALTH FACILITY
 - PARKS
 - OPEN SPACE/TRAILS CONNECTORS
 - MUNICIPAL BOUNDARY
 - TRAIL EXTENSIONS
 - STATE LAND
 - EXISTING ROADWAYS
 - FUTURE CORRIDORS
 - CANAMEX HIGHWAY
 - HOSPITAL
 - CEMETERY



Source: Town of Wickenburg General Plan, 2003

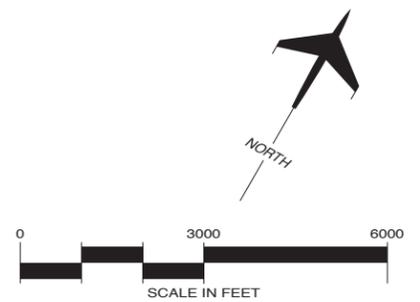




LEGEND

- Jurisdiction Boundary
 - Airport Boundary
 - School
 - Church
 - Fire Station
 - 60 DNL Contour
- Contour Source: 'Preliminary Draft - Wickenburg Airport Environmental Assessment' - (1999)
from Aviation Forecasts Prepared for Airport Master Plan - (1992)
- Traffic Pattern Airspace
- Traffic Pattern Source: 'FAA Order 7400-2D'

Public Airport Disclosure Area boundaries are as defined in Arizona Revised Statute 28-8486, as amended in 2000. Wickenburg Municipal Airport is within a county with a population of more than 500,000 persons, hence the 60 DNL contour is illustrated along with traffic pattern airspace as defined by the FAA.



are documented within the biological evaluation survey report, included in **Appendix E**. According to the report, vegetation in the study area is typical of the Sonoran Desertscrub biotic community and includes creosote bush, velvet mesquite, triangle-leaf bursage, whitethorn acacia, barrel cactus, and fluffgrass in the undisturbed upland portions of the project area. Vegetation in an ephemeral wash area also contains catclaw acacia and threeawn in addition to the upland species noted previously. The disturbed portions of the project area include desert broom, flatcrown buckwheat, and globemallow.

- FLOODPLAINS

Executive Order 11988 directs federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by the floodplains.

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) number 04013C0235G indicates that the study area is not located within the 100-year floodplain.

- WATER QUALITY

According to the Arizona Department of Environmental Quality, Surface Water website the proposed project area does not contain any waters listed on the *Clean Water Act*, Section 303(d) list (Impaired Waters List)².

Wickenburg Municipal Airport is covered by Arizona Pollutant Discharge Elimination System (AZPDES) Multi-sector General Permit (MSGP), MSGP 2000, for industrial sites, including Wickenburg Municipal Airport, expired October 30, 2005. Facilities with coverage under the MSGP 2000 before it expired, such as Wickenburg Municipal Airport, have been granted an administrative continuance and must continue to comply with their Stormwater Pollution Prevention Plan and MSGP.

The EPA re-issued a new MSGP that became effective on September 29, 2008 (MSGP 2008). However, EPA's new MSGP only applies to facilities in states and territories that are not authorized to implement the NPDES program. ADEQ was delegated to administer this program in December 2002; therefore, EPA's MSGP 2008 is only applicable in Arizona to facilities located in Indian Country lands.

- WETLANDS AND JURISDICTIONAL WATERS OF THE U.S.

In August 2009, a review of aerial photography and field investigation was conducted for the proposed project site to determine the presence of wetlands and potential Waters of the U.S. Field investigation included mapping the location of the ordinary high water mark (OHWM) limits of potential Waters of the U.S. Federal regulations define the OHWM limits and outline their use in identifying Waters of the U.S. During the field investigation, two unnamed ephemeral washes were identified within the project area. Based on the findings included in **Appendix D**, these drainages are considered potentially jurisdictional Waters of the U.S. and total 0.64 acres. The location of these features is depicted on **Exhibit 3E**.

²Arizona Department of Environmental Quality, Surface Water website accessed at <http://www.azdeq.gov/environ/water/assessment/assess.html>, February 2010.

The Proposed Action Alternative will place fill in approximately 0.31 acres of the unnamed wash identified as Wash A. As indicated in **Appendix D**, impacts to Waters of the U.S. would result from the construction of culverts for the access road crossing, the midfield apron, and from stream channelization. These impacts are consistent with the activities authorized under Nationwide Permit (NWP) 39 for Commercial and Institutional Developments. Under NWP 39, notification to the U.S. Army Corps of Engineers (USACE) is required for all projects with impacts to Waters of the U.S.

The Town of Wickenburg submitted a Preconstruction Notification Application for the project on March 19, 2010. On June 1, 2010, the USACE verified the NWP Preconstruction Notification Application. A copy of the correspondence is included in **Appendix D**. The verification is pending an in-lieu fee (ILF) payment for the mitigation of the 0.31 acres of wash that will be removed as part of the Proposed Action. The payment will be made by the Town of Wickenburg to the Nature Conservancy's Hassayampa River ILF Mitigation Project. The agreement includes a 1:1 mitigation ratio, therefore the mitigation payment made by the Town of Wickenburg will preserve 0.31 acres within the Hassayampa River Preserve.

3.3.2 Department of Transportation Section 4(f) Properties

Title 49, USC Section 303(c), also known as Section 4(f), requires evaluation of any possible impacts to publicly owned parks, recreational areas, wildlife/waterfowl refuges and historic sites of national, state, or local significance.

There is one publicly owned area within the vicinity of the airport. Immediately adjacent to the southern portion of the airport is Sunset Park, which includes four baseball/softball fields, tennis courts, play areas, and picnic ramadas.

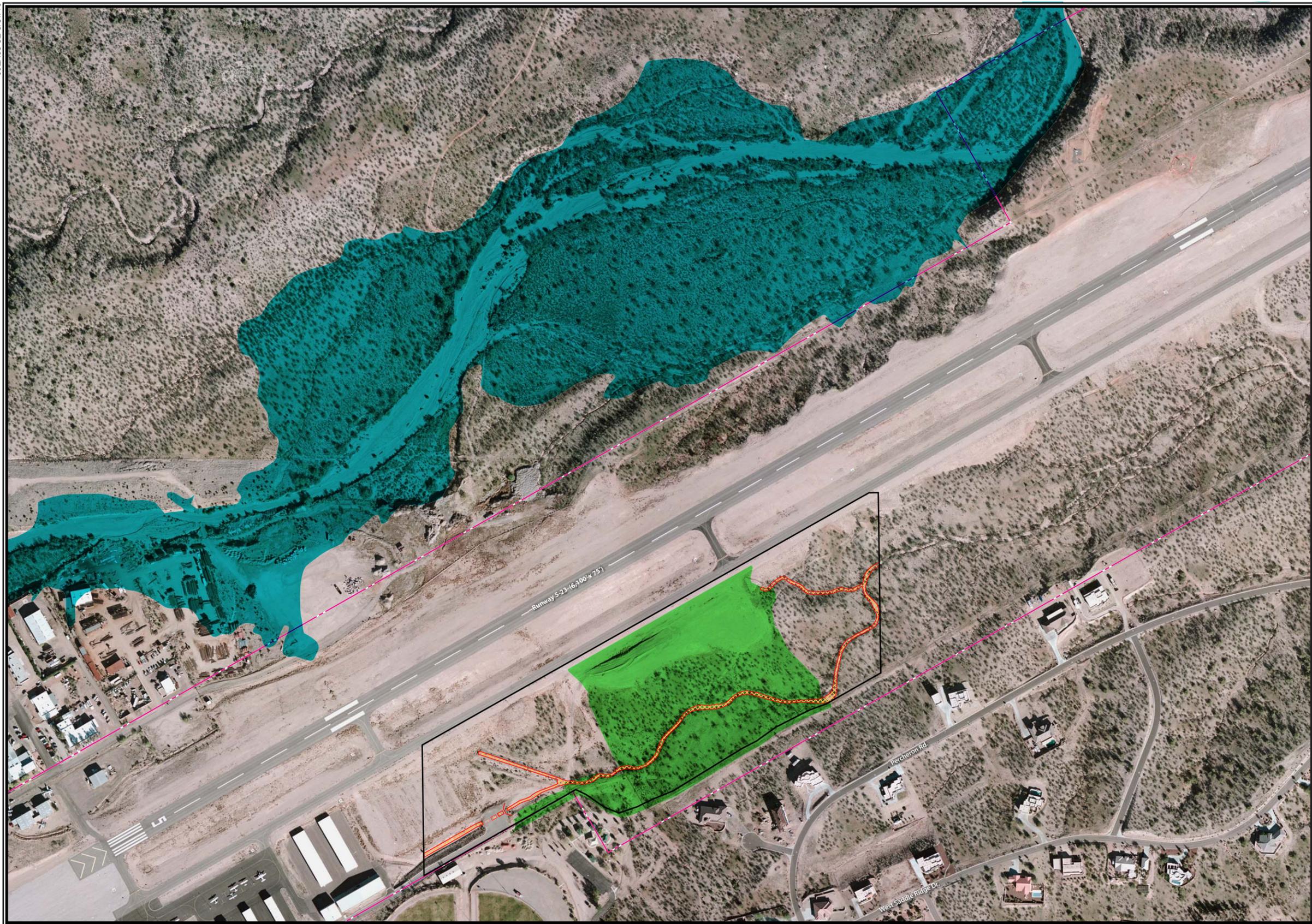
There are no locally managed, wildlife/waterfowl refuges or historic sites of national, state, or local significance within the vicinity of the airport.

3.3.3 Historical, Architectural, Archeological, and Cultural Resources

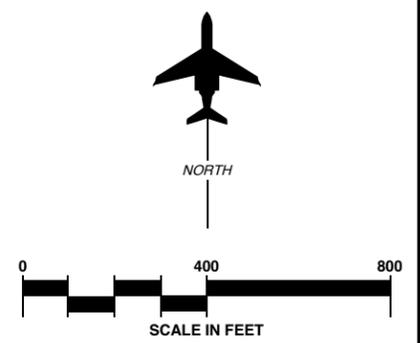
Coordination received from the Arizona State Historic Preservation Office (SHPO), included in **Appendix C**, indicates that the areas surrounding the airport have not been inspected for cultural resources and that areas along the existing wash were likely used during prehistoric and historic times. The letter recommended that the project area be inspected for cultural resources by a qualified cultural resources specialist. Therefore, in January 2010, an archaeological survey, the findings of which are included in **Appendix F**, was undertaken by SWCA to determine the presence of National Register of Historic Places (NRHP) eligible properties within the proposed project areas. The archaeological survey included a records search for the area and a field investigation of the site.

The records search conducted as part of the archaeological survey indicates that nine archaeological surveys have been conducted and five sites have been identified within a one-mile radius of the project area. None of the previously recorded sites are located within the proposed project site.

09EA03-3E-3/31/10



- LEGEND**
- - - Airport Property Line
 - Boundary of Area Surveyed for Jurisdictional Waters of the U.S.
 - Approximate Ordinary High Water Mark
 - Potential Waters of the U.S.
 - Floodplain
 - Area of Potential Effect



Source: Floodplains - Federal Emergency Management Agency Flood Insurance Rate Map 04013C0235G



The survey report indicates that three isolated occurrences were identified within the proposed project site. Two of the isolated occurrences are identified as single pieces of lithic debitage and one is an oval-shaped pile of native rocks. Isolated occurrences do not meet the Arizona State Museum (ASM) definition of archaeological site and do not warrant additional documentation.

Based on the extent of the proposed project, the Area of Potential Effect (APE), as depicted on **Exhibit 3E**, was used in consultation with the Arizona State Historic Preservation Office (SHPO) regarding the potential for the proposed action to impact cultural resources.

3.3.4 Noise

Noise exposure contours were prepared for Wickenburg Municipal Airport in 2003 as part of the airport master plan. As stated in FAA Order 1050.1E, the cumulative noise energy exposure of individuals resulting from aviation activities must be established in terms of DNL, which is the FAA's primary noise metric.³ Many land use types such as residential, schools, and places of worship, are considered incompatible with noise levels of 65 DNL or greater. The noise contours for Wickenburg Municipal Airport are shown on **Exhibit 3F**. As shown on the exhibit, the existing 65 DNL noise contour extends beyond airport property to the north. There are currently no residential structures or other known sensitive receptors within the 65 DNL contour.

3.3.5 Socioeconomic Resources

Information regarding the demographic characteristics of the area surrounding the airport was obtained from the U.S. Census Bureau. The purpose of this section is to provide background material which will be utilized in the social and socioeconomic discussions within Chapter Four of this EA.

Exhibit 3G depicts the U.S. Census blockgroups in the area surrounding the airport by percent minority and percent below poverty based on U.S. Census block groups. The minority population information is derived from U.S. Census Bureau and includes Black, Hispanic, Asian-American, or American Indian and Alaskan Native individuals as defined in Department of Transportation Order 5610.2 Appendix 1.c. To determine the percentage minority population, the total minority population for each block group within the airport vicinity was divided by the total population of the block group. The portion of the population classified as minority for the block group including the airport is 34 percent. Comparatively, the block groups located east of Vulture Mine Road within the Town of Wickenburg range between 12 and 29 percent.

The percent of population below the poverty level is derived from U.S. Census Bureau information based on annual P-60 reports. The total population below the poverty level was divided by the total population for each block group to determine the percentage of population below the poverty level within each block group within the vicinity of the airport. The percent of population below the poverty level for the blockgroup including the airport is 16 percent. Comparatively, the block groups located east of Vulture Mine Road within the Town of Wickenburg range between 11 and 14 percent.

³ Refer to Appendix H for a technical definition of DNL.

- Demographics

Historical population estimates for the Town of Wickenburg, Maricopa County, and the State of Arizona are presented in **Table 3C**. As indicated in the table, the population of the town, county and state has increased since 1990.

TABLE 3C
Population Trends (2000-2008)

Year	Town of Wickenburg	Maricopa County	State of Arizona
1990	4,515	2,122,101	3,665,228
2000	5,887	3,097,500	5,166,810
2001	5,928	3,199,440	5,303,632
2002	5,969	3,296,790	5,449,195
2003	5,977	3,386,847	5,585,512
2004	6,116	3,495,453	5,750,475
2005	6,273	3,636,250	5,961,239
2006	6,420	3,766,461	6,178,251
2007	6,530	3,865,048	6,353,421
2008	6,620	3,954,598	6,500,180

Source: Arizona Department of Commerce, <http://www.azcommerce.com/doclib/commune/wickenburg.pdf>, accessed February 2010

U.S. Census Bureau, <http://www.census.gov/popest/datasets.html>, accessed February 2010

Table 3D provides additional socioeconomic information for the area.

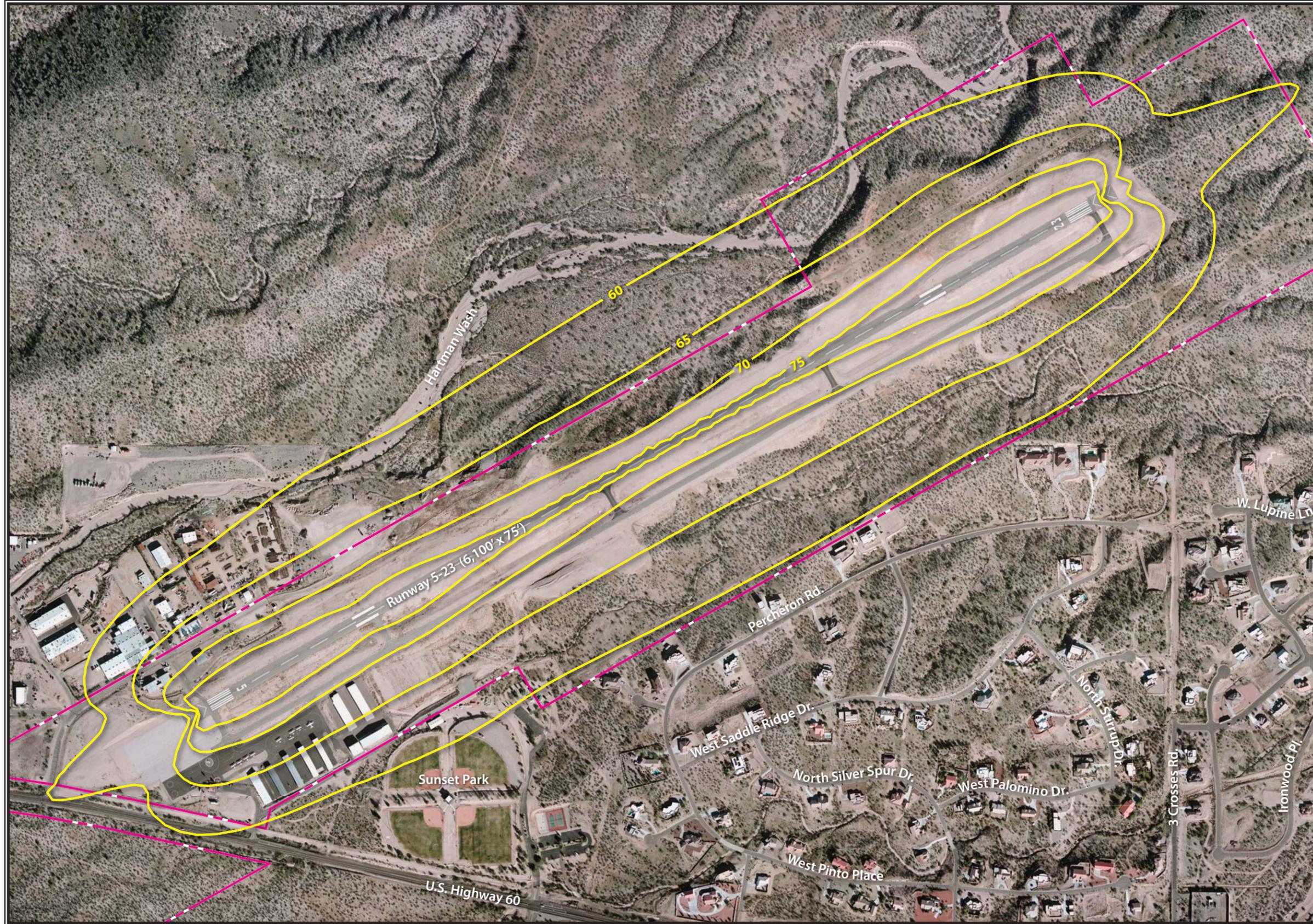
TABLE 3D
Demographic Information

Income	Town of Wickenburg	Maricopa County	Arizona
Median Family Income	\$ 40,051	\$ 51,827	\$46,723
Per Capita Income	\$ 19,772	\$ 22,251	\$20,275
Percent of Individuals below Poverty Level	11.4	11.7	9.9

Source: U.S. Census Bureau 2000, <http://factfinder.census.gov>, accessed February 2010

3.4 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

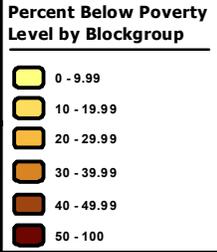
The purpose of this section is to outline those projects which will need to be considered during the cumulative impact analysis in Chapter Four of this EA. For the purpose of evaluating potential cumulative impacts associated with this project, past projects are defined as those which have been undertaken over the past five years. Foreseeable future actions are defined as those which are likely to become a reality and have begun the approval design or construction processes. Projects which are conceptual in nature are not considered as they may or may not be undertaken. The geographic extent of the analysis is dependent on the type of impacts associated with implementation of the project. Preliminary analysis indicates that the following resources will be affected by implementation of the Proposed Action: air quality, water quality, and wetlands and Waters of the U.S. The geographic scope of the air quality analysis is limited to the Town Limits of Wickenburg. The geographic scope of the water quality and wetlands and Waters of the U.S. analysis will be the Upper Hassayampa River Watershed, which includes the entire Town of Wickenburg and the airport.



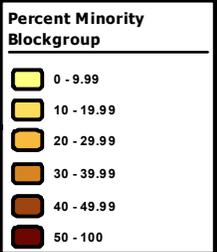
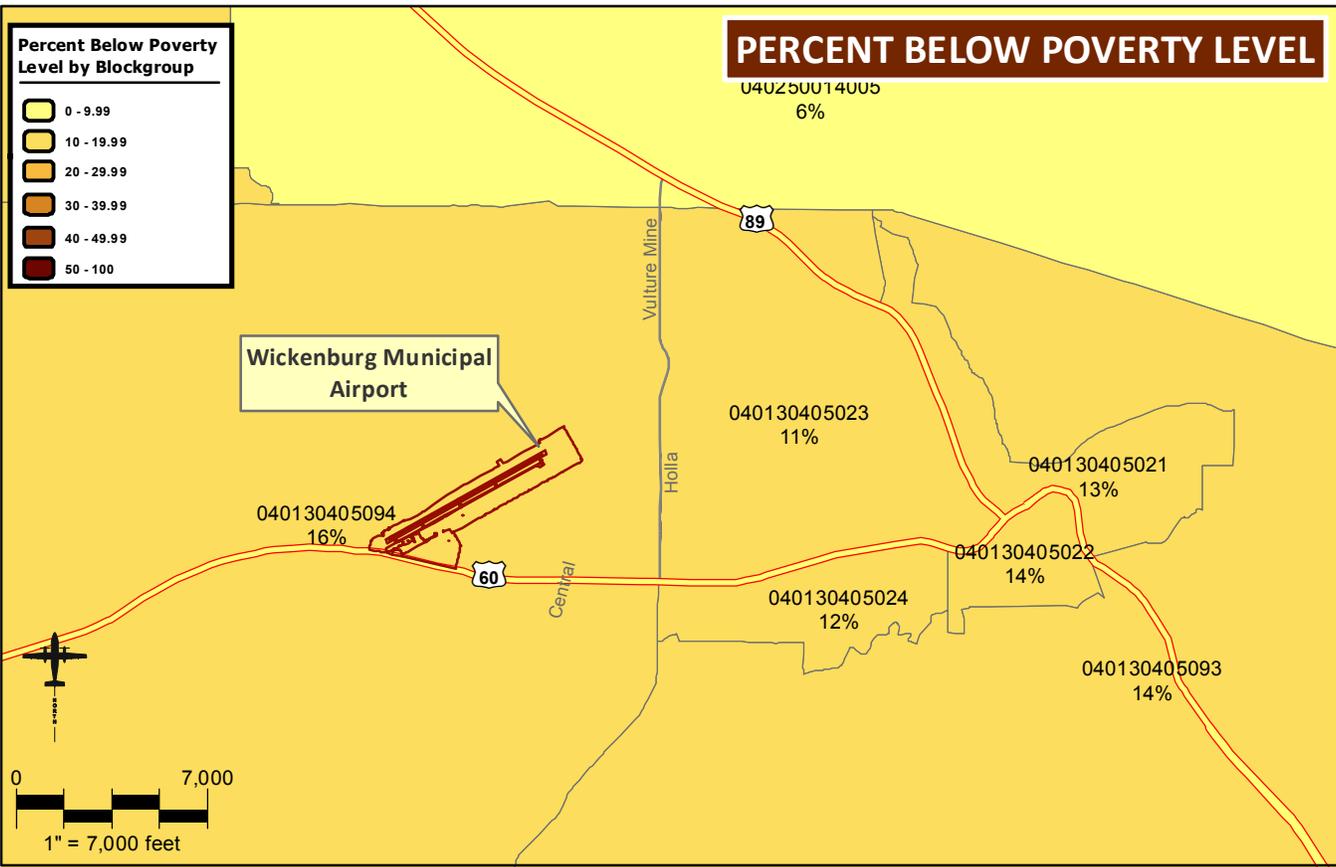
LEGEND
 - - - - - Airport Property Line
 _____ Noise Contours



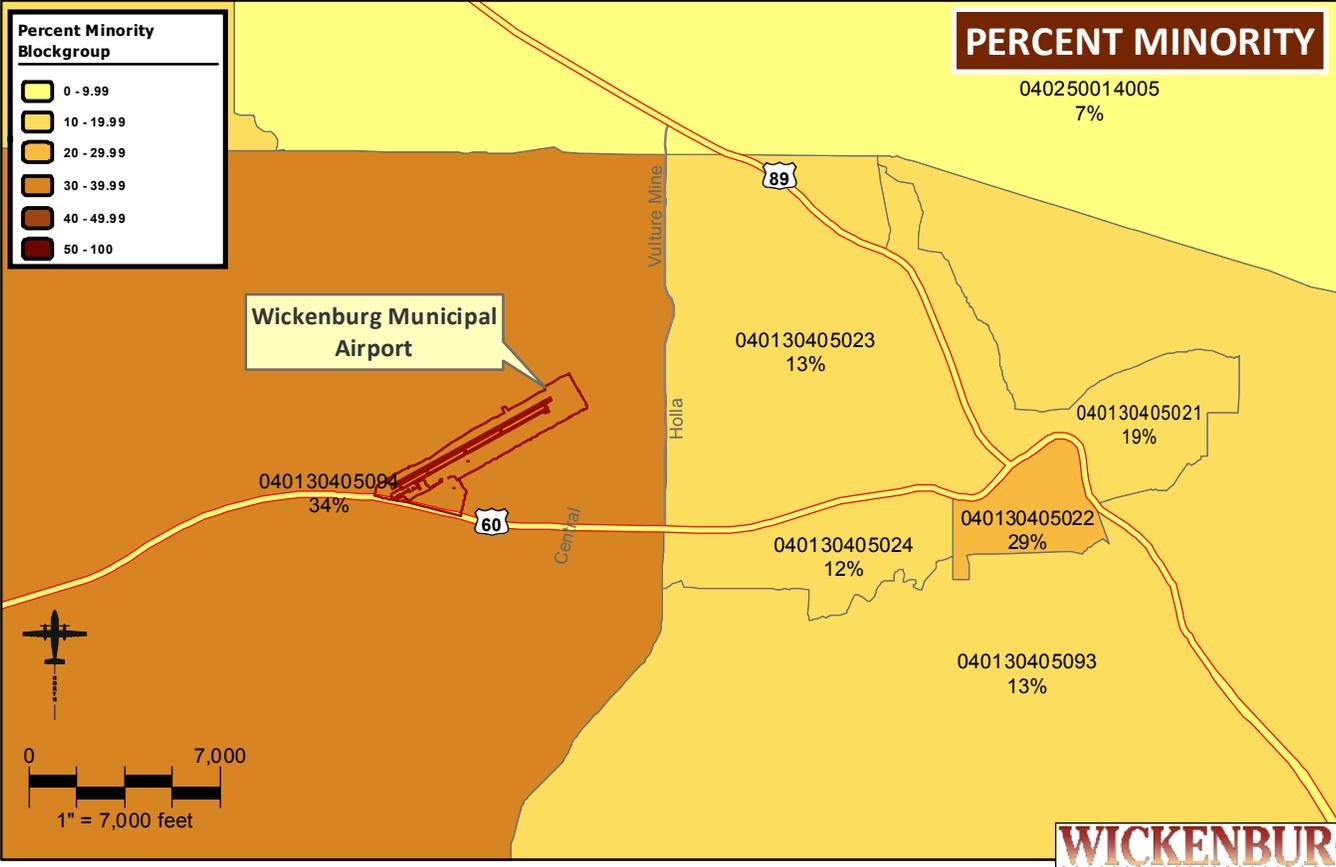
WICKENBURG
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PERCENT BELOW POVERTY LEVEL



PERCENT MINORITY



Source: Blockgroup data is from the US Census Bureau, SF3 tables. Blockgroup shapefiles are from ESRI.

Block Group Number / Percentage

Council on Environmental Quality guidance under Title 40, Code of Federal Regulations (CFR) Part 1508.7, defines cumulative impact as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

AIRPORT DEVELOPMENT

The following developments have been recently completed at the airport:

- Reconstruction of Runway 5-23 and relocation of parallel taxiway. Completed in 2008.
- Construction of an Automated Weather Observing System (AWOS). Completed in 2008.
- Construction of two 10-unit T-hangars and five conventional hangars. Completed in 2006.

Programmed airport development projects in the next five years include:

- Airport pavement preservation
- Construct aircraft wash rack
- Construct heliport and helicopter parking area
- Commercial lease parcel development

OFF-AIRPORT DEVELOPMENT

According to Town of Wickenburg records, no major developments or projects have occurred within one mile of the airport within the past three years. The potential for development exists within the industrial area located north of the approach end to Runway 5 and within the residential subdivision located south of the project site.



Chapter Four

**ENVIRONMENTAL
CONSEQUENCES
AND MITIGATION**

Chapter Four

ENVIRONMENTAL CONSEQUENCES AND MITIGATION

*Environmental Assessment
Wickenburg Municipal Airport*

Federal Aviation Administration (FAA) Orders 1050.1E, *Environmental Impacts: Policies and Procedures*, and 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, define the form and content of Environmental Assessments (EAs). An EA examines a number of specific categories to determine whether a potential for significant environmental impacts from the proposed improvements exists. Impacts are determined by comparing the anticipated local environmental condition after development (implementation of the Proposed Action Alternative) to the conditions on and around the airport should no project be developed (implementation of the No Action Alternative). Data regarding the existing condition of the project site is provided within Chapter Three of this EA.

For the purposes of this EA, the environmental consequences were determined for the following:

- Proposed Action Alternative – Includes the construction of an approximately 30,000 square-yard (750 feet by 350 feet) midfield aircraft parking apron on the south side of Runway 5-23 and associated vehicular access road at Wickenburg Municipal Airport.
- The No Action Alternative – This alternative provides a baseline of environmental conditions for comparison to the Proposed Action Alternative.

In accordance with the Council on Environmental Quality (CEQ) guidance, as contained within Title 40, Code of Federal Regulations (CFR) Part 1508.8, the environmental consequences of each impact category include consideration of the following:

- Direct effects and their significance. Direct effects are defined as those which are caused by the action and occur at the same time and place.

- Indirect effects and their significance. Indirect effects are defined as those which are caused by the action and are later in time or further removed in distance.
- Cumulative effects and their significance. Cumulative effects are defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes the other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Past, present, and reasonably foreseeable future actions which will be evaluated were described within Chapter Three of this EA. Only those past, present, and reasonably foreseeable future actions that incrementally contribute to the cumulative effects on resources affected by the Proposed Action will be considered. Past projects are defined as those which have been undertaken over the past few years. Foreseeable future actions are defined as those which are likely to become a reality and have begun the approval design or construction processes. Projects which are conceptual in nature are not considered as they may or may not be undertaken. Resources which are not affected by the Proposed Action will not be evaluated for cumulative impacts, unless such an evaluation was requested by a resource agency. A discussion of the recent and reasonably foreseeable projects is included in Section 3.4.

Where necessary, mitigation measures are discussed which would reduce or eliminate anticipated environmental impacts for each of the alternatives. Special purpose laws which protect various environmental resources will also be discussed.

The following sections contain a detailed impact analysis for those categories as defined within Appendix A of FAA Order 1050.1E and Table 7-1 of FAA Order 5050.4B. Section 4.2 provides detailed descriptions of each of the resource categories and an analysis of the impacts to these resources.

4.1 RESOURCES THE PROPOSED ACTION WOULD NOT AFFECT

As detailed in Chapter Three, based on input received from various resource agencies, available environmental documents, field surveys, and secondary sources related to the project area, it has been determined that the No Action and Proposed Action Alternatives will not affect the following resources:

- **Coastal Resources** – The project is located in an inland area not subject to coastal laws or regulations.
- **Department of Transportation Section 4(f) Properties** – As indicated in Chapter Three, Sunset Park, which may be considered of local significance under Section 4(f), is located immediately south of the project site. The Proposed Action will not require the direct use of this park nor will it create a constructive use of the park. Additionally, the Proposed Action will not result in the direct or constructive use of any publicly owned land from a historic site, recreation areas, or waterfowl and wildlife refuges of national, state, regional, or local importance. The National Park Service (NPS) determined, in its response letter included in **Appendix C**, that no parks managed by NPS will be affected by the Proposed Action For more information reference Section 3.3.2.
- **Farmland** – Based on the U.S. Department of Agriculture’s Natural Resource Conservation Service’s soil survey map for Maricopa County, no farmland of federal, state, or local importance is located in the airport environs.

- **Floodplains** - According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 04013C0235G, the airport and proposed project location are not located within the 100-year floodplain. For more information reference Section 3.3.1.
- **Wild and Scenic Rivers** – The State of Arizona has two designated Wild and Scenic Rivers: Fossil Creek and the Verde River. Fossil Creek is approximately 68 miles to the northeast, and the Verde River is approximately 62 miles to the east of Wickenburg Municipal Airport. The project area is located in a separate drainage basin and is separated from these features by the Bradshaw Mountains. No Wild and Scenic Rivers are located in proximity to the airport.

4.2 RESOURCES THE PROPOSED ACTION MAY POTENTIALLY AFFECT

After researching the affected environment and receiving information through the agency scoping process, it has been determined that the Proposed Action may impact the resources as described within the following sections.

4.2.1 Air Quality

The Airport is located in a portion of Maricopa County, which is an attainment area for all criteria pollutants as defined by the U.S. Environmental Protection Agency (EPA). Federal criteria pollutants are regulated under the National Ambient Air Quality Standards (NAAQS) and include carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). Consequently, there are no State Implementation Plan (SIP) requirements or specific control measures with respect to ambient air quality in the regional area, as it currently meets federal and state health standards for air pollution levels, including particulates.

4.2.1.1 Proposed Action Alternative

The *Clean Air Act* (CAA) requires analysis of air quality emissions and NEPA requires public disclosure of potential impacts to the human environment. The same analysis, described below, can fulfill the requirements of both Acts.

Clean Air Act

The following sections address CAA provisions for general conformity, transportation conformity, and indirect source review.

General Conformity

To ensure that a federal action complies with the NAAQS, the CAA establishes the General Conformity Rule for all general federal actions, which includes all airport improvement projects. The General Conformity Rule (Title 40, CFR Part 93) applies to federal actions that meet all of the following criteria:

- Federally funded or federally approved;
- Not a highway or transit project;

- Not identified as an exempt project under the CAA and is not listed on the federal agency's Presumed to Conform list; and
- Located within a non-attainment or maintenance area.

As previously indicated, Wickenburg Municipal Airport is located in a portion of Maricopa County designated as an attainment area for all criteria pollutants; therefore, the General Conformity Rule does not apply.

Transportation Conformity

The CAA also establishes Transportation Conformity provisions for federal actions. Transportation Conformity is applicable to highway or transit projects that are not included in the region's Transportation Plan or Transportation Improvement Plan, such as the proposed improvements at Wickenburg Municipal Airport. However, the Proposed Action Alternative does not meet CAA's definition of a transportation project¹ which includes highway and transit projects. The Proposed Action Alternative does not affect transportation projects; therefore, the transportation conformity provisions do not apply.

Indirect Source Review

Under the CAA General Conformity provisions, indirect source review is required in some states when a Federal Action has the potential to cause an increase in emissions from indirect sources. As indicated in Appendix J of the *Air Quality Procedures for Civilian Airports and Air Force Bases* handbook prepared by the FAA and Department of Defense (DOD), the State of Arizona does not have any indirect source review requirements. Therefore, indirect source review is not applicable to the implementation of the Proposed Action Alternative.

National Environmental Policy Act

For the purposes of air quality analysis under NEPA, the FAA *Desk Reference for Environmental Actions* and *Air Quality Procedures for Civilian Airports and Air Force Bases* state that an air quality emissions inventory be prepared for federal actions at airports where forecast general aviation operations exceed 180,000. Forecast operations included in the FAA *Terminal Area Forecast* are listed as 48,400 for every year from the present through 2025. Operations for either alternative do not reach the threshold level; therefore, an emissions inventory under NEPA is not required for this project.

Construction Emissions

As previously indicated, an operational emissions inventory is not required for the proposed action. However, for the purpose of disclosure, a construction-related emissions inventory was prepared. The construction emissions inventory was prepared using the Environmental Protection Agency's NONROAD and MOBILE6.2 emissions models. The NONROAD model estimates emissions related to non-highway

¹ As indicated in Title 40, CFR Part 93.101a transportation project is defined as a highway project or a transit project."

approved vehicles such as heavy construction equipment. The MOBILE6.2 model evaluates highway vehicle emissions such as those from dump trucks or light-duty work trucks.

The NONROAD and MOBILE6.2 models do not calculate lead emissions; therefore, an assessment of these impacts cannot be made. Additionally, ozone emissions are not calculated by the emissions models; however, volatile organic compounds (VOC) are a precursor to ozone. VOCs combine with sunlight and oxides of nitrogen (NOx) to form ozone. Therefore, VOC emissions are used to estimate ozone emissions.

Construction emissions totals for the Proposed Action Alternative are included in **Table 4B**. Output data from the NONROAD and MOBILE6.2 emissions models are expressed in tons per year. A summary of the construction emissions assumptions used for this analysis is included in **Appendix G**. It is expected that construction of the proposed improvements will last three months. The calculated emissions will occur over this construction period.

As previously discussed, the proposed action will occur in an attainment area; therefore, there are no *de minimis* thresholds for comparison of the emissions inventory levels.

TABLE 4B
Construction Emissions (Tons per Year)

Pollutant ¹	2012
	Proposed Action Alternative Construction Emissions (tons/year)
CO	0.58
VOC	0.09
NO _x	1.24
SO _x	0.03
PM ₁₀	0.08
PM _{2.5}	0.08

¹ NONROAD and MOBILE6.2 do not calculate emissions for lead

Source: Coffman Associates analysis.

4.2.1.2 No Action Alternative

The No Action Alternative will not result in any air quality impacts as the airport will continue to operate in a manner similar to what it does today.

4.2.1.3 Analysis and Mitigation

Implementation of the Proposed Action Alternative will not result in impacts which exceed one or more of the NAAQS for any of the time periods analyzed; therefore, impacts do not exceed the established threshold of significance.

A letter received from the Arizona Department of Environmental Quality, Air Quality Planning Section, indicates that although the airport is not within a non-attainment area, it is near the border of the Phoenix, Arizona PM₁₀ nonattainment area and recommends the following Best Management Practices

(BMPs) to reduce particulate matter emissions during construction of the proposed airport improvements:

Site Preparation and Construction

- A. Minimize land disturbance
- B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air
- C. Cover trucks when hauling soil
- D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site
- E. Stabilize the surface of soil piles
- F. Create windbreaks

Site Restoration

- A. Revegetate any disturbed land not used
- B. Remove unused material
- C. Remove soil piles via covered trucks

A copy of the letter is included in **Appendix C**. Additionally, BMPs discussed in Section 4.2.4.3 will be implemented to reduce particulate emissions.

The No Action Alternative will not result in any air quality impacts as the airport will continue to operate in a manner similar to what it does today.

4.2.2 Compatible Land Use

An airport's compatibility with surrounding land uses is usually associated with the extent of the airport's noise impacts. Airport projects such as those needed to accommodate fleet mix changes, an increase in operations at the airport, or air traffic changes are examples of activities which can alter noise impacts and affect surrounding land uses. Typically, if the noise analysis concludes that there is no significant impact, a similar conclusion usually can be made with respect to compatible land use. However, if the Proposed Action would result in other impacts exceeding thresholds of significance which have land use ramifications, such as disruption of communities, relocation of businesses or residences, and induced socioeconomic impacts, the effects of the land use impacts shall also be discussed within this section.

Threshold of Significance

FAA Order 1050.1E, Appendix A, paragraph 4.1a states that if the noise analysis concludes there is no significant impact, a similar conclusion usually may be drawn with respect to compatible land use. Compatible land use evaluations also consider the compatibility of land uses in the vicinity of the airport to ensure those uses do not adversely affect safe aircraft operations.

4.2.2.1 Proposed Action Alternative

As indicated on Exhibit 3F, the airport's 65 DNL noise exposure contour extends off airport property to the north. The noise exposure contours do not extend over any noise-sensitive land uses. The Proposed Action results in a minimal change in the noise exposure contours for the airport and will continue to be compatible with surrounding development.

As a result of the Proposed Action, it is anticipated that operations at the airport would increase by approximately one percent. This growth will primarily occur in the itinerant category with the increased availability of parking spaces. As discussed in Section 4.2.10, Noise, the change in noise exposure at the airport will not be significant based on established FAA thresholds. As discussed in Chapter Three, the area south of the proposed project site is developed with the Town of Wickenburg's Sunset Park which is a multi-use community park that includes ball fields and other recreation areas. To the east of Sunset Park is the Saddle Ridge West residential subdivision. The *Town of Wickenburg General Plan, 2003* indicates that the areas immediately adjacent to the airport on the southern side will continue to be developed with land uses consistent with the existing condition.

4.2.2.2 No Action Alternative

Under the No Action Alternative, Airport operations would continue to be compatible with surrounding land uses.

4.2.2.3 Analysis and Mitigation

As detailed in Section 4.1, Noise, no noise impacts are anticipated due to project implementation. As a result of the Proposed Action, it is anticipated that operations at the airport would increase by approximately one percent. The change in noise exposure at the airport as a result of the Proposed Action will not be significant based on established FAA thresholds. The Proposed Action Alternative will not exceed the compatible land use significant impact thresholds outlined previously described in this section.

4.2.3 Construction Impacts

Airport construction-related environmental effects generally include dust and equipment emissions, noise, and storm water runoff. In most cases, these effects are subject to federal, state, and/or local ordinances or regulations which typically prescribe suitable mitigation measures. Significant impacts occur when the severity of construction impacts cannot be mitigated below the threshold for the affected resources (i.e., air quality, noise, water quality, etc.).

4.2.3.1 Proposed Action

As discussed in Chapter Three, Saddle Ridge West subdivision and Sunset Park are located immediately south of the airport. These areas are adjacent to the portion of the airport property where the proposed mid-field apron is planned. All construction-related impacts are expected to be temporary in nature and will be limited to the following resources.

Noise. Construction-related noise impacts at airports result from the use of construction equipment. Noise impacts from construction activities are closely related to the type of construction equipment being used during each phase of construction. The construction phases are expected to include earthwork/grading, paving, and landscaping. Each phase necessitates different types of construction equipment.

Construction noise related to the Proposed Action will be localized to the project site and on-airport access roads. Whenever possible, construction will occur during daytime hours.

Air Quality. The generation of exhaust emissions and fugitive dust as a result of construction activities is anticipated due to the movement of heavy construction equipment and the exposure and disturbance of surface soils. This impact is expected to be both temporary and localized. Mitigation measures, as outlined within Section 4.2.4.3, will reduce this impact to levels below significance.

Water Quality. Construction activities also have the potential to result in temporary water quality impacts, particularly suspended sediments, during and shortly after precipitation events in the construction phase. Recommendations established in FAA Advisory Circular 150/5370-10, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control*, will be incorporated into project design specifications to further mitigate potential impacts. These standards, commonly referred to as BMPs, include temporary measures to control water pollution, soil erosion, and siltation through the use of berms, fiber mats, gravels, mulches, slope drains, and other erosion control methods. BMPs protect the quality of surface water features on and off the airport by reducing or preventing pollution of storm water. BMPs are described fully within Section 4.2.4.3.

In addition, through *Clean Water Act* (CWA) Section 402, Arizona Pollutant Discharge Elimination System (AZPDES) permit coverage is required for any point source discharge to surface Waters of the U.S., including storm water discharges associated with construction activity. Construction activities (clearing, grading, or excavating) that disturb one acre or more require coverage under AZPDES Construction General Permit (AZG2003-001).

In addition, the airport sponsor will comply with the AZPDES program regarding filing a Notice of Intent prior to construction activities affecting more than one acre. This program is managed by the State of Arizona.

The Proposed Action Alternative will place fill in an unnamed wash south of the existing parallel taxiway, resulting in an impact of approximately 0.31 acres. The placement of fill in this wash qualifies for a nationwide permit under Section 404 of the CWA. More details concerning the fill and the Section 404 permit can be found in Section 4.2.14, Wetlands and Waters of the U.S.

4.2.3.2 No Action

No development is proposed under the No Action Alternative; therefore, no construction impacts will occur.

4.2.3.3 Analysis and Mitigation

Implementation of the Proposed Action Alternative will result in short-term construction impacts. The following preventative and mitigative measures will be implemented during construction. With implementation of the mitigation measures, it is not anticipated that implementation of the Proposed Action Alternative will exceed the established threshold of significance.

Site Preparation

- Minimize land disturbance.
- Use watering trucks to minimize dust.
- Cover trucks when hauling dirt.
- Stabilize the surface of dirt piles if not removed immediately.
- Use windbreaks to prevent accidental dust pollution.
- Limit vehicular paths and stabilize these temporary roads.
- Grade to prevent soil from washing onto paved roadways.
- Pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site to prevent dirt from washing onto paved roadways.

Construction

- Cover trucks when transferring materials.
- Use dust suppressants on traveled paths which are not paved.
- Minimize unnecessary vehicular and machinery activities.
- Minimize dirt track-out by washing or cleaning trucks before leaving the construction site.

Post Construction

- Revegetate any disturbed land not used. [*None existing today.*]
- Remove unused material.
- Remove dirt piles.
- Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities. [*None existing today.*]

Construction Scheduling

- Sequence construction activities so that areas void of vegetation are not exposed for long periods of time.
- Schedule landscaping and other work that permanently stabilizes the area to be done immediately after the land has been graded to its final contour.
- Alter the project schedule to minimize the amount of denuded areas during wet months.
- Construct permanent storm water control facilities early in the project schedule and then utilize these structures for controlling erosion and sedimentation.

Limiting Exposed Areas

- Divert up-slope water from entering the denuded areas of the construction site by constructing dikes and swales.
- Divert or intercept storm water before it reaches long and/or steep slopes.
- Release captured storm water at a slow and controlled rate to prevent damage to downstream drainageways and structures.

- Increase the soil's ability to absorb moisture through vegetative means, surface roughening, and/or mulching.
- Stage grading so that the native vegetation provides a buffer to slow and disperse runoff.

Runoff Velocity Reduction

- Build check dams or other energy dissipation structures in unlined drainage channels to slow runoff velocity and encourage settlement of sediments.
- Limit slopes to 3:1 wherever practical.
- Intercept runoff before it reaches steep slopes using diversion dikes, swales, or other barriers.
- Protect slopes with mulches, matting, or other types of temporary or permanent soil stabilization.
- Provide velocity-reducing structures or rip rap linings at storm water outfalls.

Sediment Trapping

- Direct sediment-laden storm water to temporary sediment traps.
- Construct temporary sediment traps or basins at the drainage outlet for the site.
- Use temporary sediment barriers such as silt fences, straw bale barriers, sand bag barriers, and gravel filter barriers for construction sites with relatively flat slopes that produce sheet flow runoff.

Good Housekeeping

- Schedule regular inspections of storm water and sediment control devices.
- Repair and/or replace storm water and sediment control devices as often as necessary to maintain their effectiveness.

4.2.4 Fish, Wildlife, and Plants

Section 7 of the *Endangered Species Act (ESA)*, as amended, applies to federal agency actions and sets forth requirements for consultation to determine if the Proposed Action "may affect" a federally endangered or threatened species. If an agency determines that an action "may affect" a federally protected species, then Section 7(a)(2) requires each agency to consult with the U.S. Fish and Wildlife Service (FWS) to ensure that any action the agency authorizes, funds, or carries out is not likely to jeopardize the continued existence of any federally listed endangered or threatened species, or result in the destruction or adverse modification of critical habitat. If a species has been listed as a candidate species, Section 7 (a)(4) states that each agency must confer with the FWS.

The *Fish and Wildlife Coordination Act* requires that agencies consult with the state wildlife agencies and the Department of the Interior concerning the conservation of wildlife resources where the water of any stream or other water body is proposed to be controlled or modified by a federal agency or any public or private agency operating under a federal permit.

The *Migratory Bird Treaty Act (MBTA)* prohibits private parties and federal agencies in certain judicial circuits from intentionally taking a migratory bird, their eggs, or nests. The MBTA prohibits activities which would harm migratory birds, their eggs, or nests unless the Secretary of the Interior authorizes such activities under a special permit.

Executive Order 13112, *Invasive Species*, directs federal agencies to use relevant programs and authorities, to the extent practicable and subject to available resources, to prevent the introduction of invasive species and provide for restoration of native species and habitat conditions in ecosystems that have been invaded. FAA is to identify Proposed Actions that may involve risks of introducing invasive species on native habitat and populations. "Introduction" is the intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity. "Invasive species" are alien species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health.

Threshold of Significance

A significant impact to federally listed threatened or endangered species would occur when the FWS determines that the Proposed Action would likely jeopardize the continued existence of the species in question or would result in the destruction or adverse modification of critical habitat for the species. However, an action need not involve a threat to extinction to federally listed species to result in a significant impact; lesser impacts, including impacts on non-listed species, could also constitute a significant impact. Consultation with agencies or organizations having jurisdiction or special expertise concerning the protection and/or management of the species should be utilized in cases such as this.

4.2.4.1 Proposed Action Alternative

Impacts to state or federally listed species. As discussed in Chapter Three, field surveys were conducted by SWCA Environmental Consultants (SWCA) in January 2010 to evaluate the potential for state and federally listed species to occur in the project area. The field survey findings are documented within the biological evaluation survey report, included in **Appendix E**. The report notes that vegetation in the study area is typical of the Sonoran Desertscrub biotic community and includes creosote bush, velvet mesquite, triangle-leaf bursage, whitethorn acacia, barrel cactus, and fluffgrass in the undisturbed upland portions of the project area. Vegetation in the ephemeral wash area also contains catclaw acacia and threeawn in addition to the upland species noted previously. The disturbed portions of the project area include desert broom, flatcrown buckwheat, and globemallow.

Table 4A includes the federally listed species as published by the U.S. Fish and Wildlife Service (USFWS) for Maricopa County. Based on the findings of the Biological Evaluation and indicated in **Table 4A**, none of the 13 species listed for Maricopa County by USFWS have the potential to occur in the project area. The project area is either beyond the known geographic or elevation range of these species or it does not contain vegetation or landscape features known to support these species.

TABLE 4A
Threatened and Endangered Species
Maricopa County, Arizona

Common Name	Habitat	Status	Potential for Occurrence	Determination of Effect
Arizona cliffrose	Found in rolling, limestone hills in Sonoran Desertscrub, usually on white Tertiary limestone lakebed deposits high in lithium, nitrates, and magnesium.	Endangered	Unlikely to occur	No effect ¹
California least tern	Occurs in bays and lagoons and forms breeding colonies in the adjacent open sandy beaches, dunes, or disturbed sites within their normal range; however, also documented to use open, sandy flat areas along shorelines of inland watercourses.	Endangered	Unlikely to occur	No effect ¹
Desert pupfish	Found in shallow waters of desert springs, small streams, and marshes at elevations below 5,000 feet amsl.	Endangered	Unlikely to occur	No effect ¹
Gila Topminnow	Occurs in small streams, springs, and cienegas at elevations below 4,500 feet msl, primarily in shallow areas with aquatic vegetation and debris for cover.	Endangered	Unlikely to occur	No effect ¹
Lesser long-nosed bat	Found in southern Arizona from the Picacho Mountains southwesterly to the Agua Dulce Mountains and southeasterly to the Galiuro and Chiricahua mountains at elevations between 1,600 and 11,500 feet msl.	Endangered	Unlikely to occur	No effect ¹

TABLE 4A (Continued)
Threatened and Endangered Species
Maricopa County, Arizona

Common Name	Habitat	Status	Potential for Occurrence	Determination of Effect
Mexican spotted Owl	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally nests in older forests of mixed conifers or ponderosa pine–Gambel oak. Nests in live trees on natural platforms (e.g., dwarf mistletoe brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet msl.	Threatened	Unlikely to occur	No effect ¹
Razorback sucker	Found in backwaters, flooded bottomlands, pools, side channels, and other slower-moving habitats at elevations below 6,000 feet msl.	Endangered	Unlikely to occur	No effect ¹
Roundtail Chub	Found in cool to warm water, mid-elevation streams and rivers (between 1,210 and 7,220 msl) adjacent to swifter riffles and runs. Cover is usually present and consists of large boulders, tree rootwads, submerged large trees and branches, undercut cliff walls, or deep water. Smaller chubs generally occupy shallower, low velocity water adjacent to overhead bank cover. Also inhabits large reservoirs.	Candidate	Unlikely to occur	No effect ¹
Sonoran pronghorn	Found in Sonoran Desertscrub within broad, intermountain alluvial valleys with creosote-bursage and paloverde–mixed cacti associations at elevations between 2,000 and 4,000 feet amsl.	Endangered	Unlikely to occur	No effect ¹
Southwestern willow flycatcher	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder, saltcedar, Russian olive, buttonbush, and arrowweed are present. Habitat occurs at elevations below 8,500 feet msl.	Endangered	Unlikely to occur	No effect ¹
Woundfin	Found in shallow, warm, turbid, fast flowing rivers at elevations below 4,500 feet amsl	Endangered	Unlikely to occur	No effect ¹
Yellow-billed Cuckoo	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet msl. Dense understory foliage appears to be an important factor in nest site selection.	Candidate	Unlikely to occur	No effect ¹
Yuma clapper rail	In Arizona, found at elevations below 4,500 feet msl in freshwater marshes often dominated by cattails, bulrushes, and sedges.	Endangered	Unlikely to occur	No effect ¹
1- Species does not have the potential to occur in the project area. The project area is either beyond the known geographic or elevation range of these species or it does not contain vegetation or landscape features known to support these species, or both.				

Impacts to biological resources. The State of Arizona Game and Fish Department's Online Environmental Review Tool indicates that the proposed project site is not near any federally proposed or designated Critical Habitat. A copy of the output report generated by the State of Arizona Game and Fish Department's Online Environmental Review Tool is included in **Appendix E**.

The Online Environmental Review Tool output indicates an occurrence record for the Sonoran desert tortoise within three miles of the project area. As indicated in **Appendix E**, although the Sonoran desert tortoise is not currently on the Maricopa County list, the USFWS announced a 90-day finding on August 28, 2009 addressing a petition to list Sonoran desert tortoise as a distinct population segment and designate Critical Habitat. The USFWS has determined that there is substantial information indicating that listing of the Sonoran desert tortoise may be warranted and has initiated a status review of the Sonoran population of the desert tortoise. During field investigations, no desert tortoise or potential habitat was observed.

The Online Environmental Review Tool also indicates a record for the Wickenburg-Hassayampa Wildlife Corridor within three miles of the project site; however, the Proposed Action will not result in an impact due to the distance between the airport and the corridor.

4.2.4.2 No Action Alternative

The No Action Alternative would have no effect on any listed species due to the lack of suitable habitat on the airport property.

4.2.4.3 Analysis and Mitigation

The biological evaluation prepared for this project concludes that the project site does not contain any habitat to support any of the federal or state listed species for Maricopa County; therefore, the Proposed Action Alternative will not have an impact on any federally or state-listed species. The FAA determined, based on the results of the field surveys, that the Proposed Action will not affect any federally listed endangered or threatened species. Therefore, informal consultation with USFWS was initiated and a request for concurrence with this finding was submitted to USFWS in April 2010. USFWS responded in September 2010 that no issues of concern were noted regarding the project and a response to FAA's no effect finding is not required. A copy of the correspondence is included in **Appendix E**.

If ground disturbance is undertaken during the nesting period for birds protected under the MBTA, a certified biologist will conduct preconstruction surveys for the presence of raptors or any nesting bird species within 500 feet of proposed construction areas. Should active nests be found, further coordination will be undertaken with the USFWS to address the requirements of the *Migratory Bird Treaty Act*.

The Proposed Action Alternative will not exceed the significant impact thresholds for fish, wildlife, or plants previously discussed in this section.

4.2.5 Hazardous Materials, Pollution Prevention, and Solid Waste

Four primary laws have been passed governing the handling and disposal of hazardous materials, chemicals, substances, and wastes. The two statutes of most importance to the FAA in proposing actions to construct and operate facilities and navigational aids are the *Resource Conservation Recovery Act (RCRA)* (as amended by the *Federal Facilities Compliance Act of 1992*) and the *Comprehensive Environmental Response, Compensation, Liability Act (CERCLA)*, as amended (also known as Superfund). RCRA governs the generation, treatment, storage, and disposal of hazardous wastes. CERCLA provides for cleanup of any release of a hazardous substance (excluding petroleum) into the environment. Consideration should be given regarding the hazardous nature of any materials or wastes to be used, generated, or disturbed by the Proposed Action, as well as the control measures to be taken.

Threshold of Significance

Thresholds of significance are typically only reached when the resource agency has indicated that it would be difficult to issue a permit for the proposed development. A significant impact may also be realized if the Proposed Action would affect a property listed on the National Priorities List (NPL)

4.2.5.1 Proposed Action Alternative

Hazardous Materials. Construction of the Proposed Action Alternative will result in earthwork disturbances. Areas planned to be disturbed for construction at the mid-field and east access road apron are undeveloped and in a natural state. Previous construction at the airport has not resulted in the uncovering of any hazardous materials; therefore, it is unlikely that earthwork will expose any hazardous materials. The probability of the area containing hazardous materials is extremely unlikely.

Pollution Prevention. Implementation of the Proposed Action Alternative will require Arizona Pollutant Discharge Elimination System (AZPDES) permit coverage as outlined in *Clean Water Act (CWA)* Section 402. The permit will reflect the additional impervious surfaces and any mitigation measures which could be implemented during the final design of the project. Additionally, a construction-related AZPDES permit will be required prior to construction of the proposed improvements. This permit requires a Notice of Intent for all construction activities disturbing one acre or more of land. Construction-related water quality impacts are discussed under Section 4.2.4, Construction Impacts, and will be minimized through the BMPs.

Solid Waste. The Proposed Action Alternative is being undertaken to accommodate existing and future forecasted users of the airport. Solid waste, in the form of construction materials, is expected to increase with implementation of the proposed project; however, the quantity and type of solid waste resulting from implementation of the Proposed Action Alternative is not anticipated to exceed handling capabilities.

No conditions covered under RCRA or CERCLA are present within the vicinity of the project site.

4.2.5.2 No Action Alternative

No construction would occur with implementation of the No Action Alternative; therefore, no impacts to hazardous materials are anticipated to result from alternative implementation. Additionally, the airport will continue to operate in a manner similar to today; therefore, ongoing pollution prevention measures will be employed and solid waste will continue to be generated.

4.2.5.3 Analysis and Mitigation

Under both alternatives, the airport will continue to operate in a manner similar to today; therefore, ongoing pollution prevention measures will be employed and solid waste will continue to be generated. The Proposed Action Alternative will not result in impacts that exceed the significant impact thresholds previously discussed in this section.

4.2.6 Historical, Architectural, Archaeological, and Cultural Resources

Historical, architectural, archaeological, and cultural resources are protected in accordance with the *National Historic Preservation Act* (NHPA). Section 106 of the NHPA requires the FAA to consider the effects of proposed actions on sites listed on, eligible for listing on, or potentially eligible for listing on, the NRHP. To assist with the determination of impacts, an area of potential effect (APE) is defined. The APE includes the areas that will be directly impacted by construction of the proposed project as well as areas that could be indirectly impacted (i.e., through a change in noise exposure after project implementation). Once the APE is defined, an inventory is undertaken of NRHP properties or NRHP-eligible properties within the project area and an assessment of impacts is undertaken.

Threshold of Significance

FAA Order 1050.1E, Appendix A, paragraph 11.3 states that the FAA, through the Section 106 consultation process, makes the determination regarding significant impacts on protected resources through consultation with the State Historic Preservation Officer.

4.2.6.1 Proposed Action Alternative

As discussed in Chapter Three, coordination received from the Arizona State Historic Preservation Office (SHPO), included in **Appendix C**, indicates that the areas surrounding the airport have not been inspected for cultural resources and areas along the existing wash were likely used during prehistoric and historic times. The letter recommends that the project area be inspected for cultural resources by a qualified cultural resources specialist. Therefore, in January 2010, an archaeological survey, the findings of which are included in **Appendix F**, was undertaken by SWCA Environmental Consultants to determine the presence of National Register of Historic Places (NRHP) eligible properties within the proposed project areas. The archaeological survey included a records search for the area and a field investigation of the site.

The records search conducted as part of the archaeological survey indicates that nine archaeological surveys have been conducted and five sites have been identified within a one-mile radius of the project area. None of the previously recorded sites are located within the proposed project site.

The survey report indicates that three isolated occurrences were identified within the proposed project site. Two of the isolated occurrences are identified as single pieces of lithic debitage and one is an oval-shaped pile of native rocks. Isolated occurrences do not meet the Arizona State Museum (ASM) definition of archaeological site and do not warrant additional documentation.

4.2.6.2 No Action Alternative

No prehistoric or historic era resources are present within the project area and no development will occur with implementation of the No Action Alternative; therefore, no impacts to historic or cultural resources will occur.

4.2.6.3 Analysis and Mitigation

FAA determined that no historic resources are located within the APE, as depicted on Exhibit 3E, and the Proposed Action will not result in impacts to any properties listed or eligible for listing on the National Register of Historic Places. The FAA communicated these findings to the SHPO on April 7, 2010, and the SHPO responded on April 15, 2010 to concur. Copies of these letters are included in **Appendix F**. SHPO's response is indicated by the signed stamp on the second page of the response letter (F-17).

During implementation of the Proposed Action Alternative, should resources be unearthed during construction, all construction activities in the vicinity of the find will cease until a determination can be made as to its/their significance and, if necessary, a data recovery plan be implemented. If further on-site investigation is required, all subsequent recommendations shall conform to Section 106 of the *National Historic Preservation Act*.

Impacts resulting from implementation of the Proposed Action Alternative will not exceed the previously discussed levels of significance for this impact category.

4.2.7 Light Emissions and Visual Impacts

Airport lighting is characterized as either airfield lighting (i.e., runway, taxiway, approach and landing lights) or landside lighting (i.e., security lights, building interior lighting, parking lights, and signage). Generally, airport lighting does not result in significant impacts unless a high intensity strobe light, such as a Runway End Identification Light (REIL), would produce glare on any adjoining site, particularly residential uses.

Visual impacts relate to the extent that the proposed development contrasts with the existing environment and whether a jurisdictional agency considers this contrast objectionable. The visual sight of aircraft, aircraft contrails, or aircraft lights at night, particularly at a distance that is not normally intrusive, should not be assumed to constitute an adverse impact.

No specific impact thresholds have been established for this resource category by the FAA.

4.2.7.1 Proposed Action

Lighting Impacts. The proposed mid-field apron will include security lighting, similar to existing security lighting on other portions of the airport. The light standards will be placed at the perimeter of the aircraft parking apron and will be directed away from adjacent land uses.

Visual Impacts. Visual impacts resulting from implementation of the Proposed Action Alternative will be most apparent on the south side of the airport where the mid-field apron and access road will be constructed. The proposed airport improvements will be similar in nature to the existing airport facilities in this area. The primary change will be the proximity of the facilities to adjacent land uses.

4.2.7.2 No Action

As no development would occur with implementation of the No Action Alternative, no lighting or visual impacts are anticipated.

4.2.7.3 Analysis and Mitigation

Implementation of the Proposed Action Alternative will introduce additional light sources on the mid-field apron ramp. The security lights will be direction lights that illuminate the mid-field apron area and will include shields to minimize light emissions off-airport. Potential visual impacts will result from locating airport facilities in close proximity to adjacent residential and public park areas. The Proposed Action will remain entirely on airport property and is consistent with the Town of Wickenburg's adopted Airport Master Plan.

4.2.8 Natural Resources and Energy Supply

Energy requirements associated with airport development projects generally fall into two categories: (1) those that relate to changed demands for stationary facilities (i.e., airfield lighting and terminal building heating); and (2) those that involve the movement of air and ground vehicles (i.e., fuel consumption). In addition to fuel, the use of natural resources includes construction materials, water, and manpower.

Threshold of Significance

An impact arises where a project will have a measurable effect on local energy supplies or would require the use of an unusual material or one in short supply. Increased consumption of fuel by aircraft is examined where ground movement or run-up times are increased substantially without offsetting efficiencies in operational procedures, or if the action includes a change in flight patterns. Ground vehicles' fuel consumption is examined only if the action would add appreciably to access time, or if there would be a substantial change in movement patterns for on-airport service or other vehicles.

4.2.8.1 Proposed Action

The primary impact on natural resources resulting from alternative implementation is related to fuel usage during construction of the proposed airport improvements. Indirect impacts attributed to construction activities could temporarily increase the use of some or all of the following: electricity, fuel, oil, chemicals, water, and other forms of energy and resources needed to construct the proposed improvements.

4.2.8.2 No Action

No construction will occur with implementation of the No Action Alternative; therefore, natural resources and energy supply would be utilized in a manner similar as to what is experienced today.

4.2.8.3 Analysis and Mitigation

Implementation of the Proposed Action Alternative will result in an increased use of energy and natural resources during construction. It is not anticipated that the demand for these resources will exceed supply.

No mitigation measures are required. Impacts resulting from implementation of the Proposed Action Alternative do not exceed the levels of significance for this impact category as defined in Section 4.2.10.

4.2.9 Noise

Aircraft sound emissions are often the most noticeable environmental impact an airport will produce on a surrounding community. If the sound is sufficiently loud or frequent in occurrence, it may interfere with various activities or otherwise be considered objectionable. To determine noise-related impacts that the Proposed Action could have on the environment surrounding the airport, noise exposure patterns based on projected future aviation activity should be analyzed. Title 49, USC § 47101 (a)(2), (c) and (h) establish policies to minimize current and projected noise impacts on nearby communities resulting from building and operating aviation facilities. This section also requires the Secretary of Transportation to consult with the Secretary of the Interior and the EPA Administrator about projects involving new airports, new runways, or major runway extensions that may cause significant environmental impacts.

Threshold of Significance

FAA Orders 1050.1E and 5050.4B define a significant noise impact as one which would occur if the Proposed Action would cause noise-sensitive areas to experience an increase in noise of 1.5 DNL or more, at or above the 65 DNL noise exposure level when compared to the No Action Alternative for the same timeframe.

4.2.9.1 Proposed Action Alternative

As a result of the Proposed Action, it is anticipated that operations at the airport would increase by approximately one percent. This growth will primarily occur in the itinerant category with the increased availability of parking spaces. Forecast operations are based on information available through the FAA’s *Terminal Area Forecast*. As noted in **Table 4B**, the FAA *Terminal Area Forecast* indicates that no operations or based aircraft growth is anticipated for the airport through 2017.

The proposed project does not include changes to aircraft ground tracks or flight profiles, changes in fleet mix, or changes in operational times. Therefore, the FAA Area Equivalent Method (AEM) was employed to determine if additional noise analysis is necessary. The AEM is a screening method that uses mathematical procedures to provide an estimated change in noise contour area for an airport given the types of aircraft and the number of operations for each aircraft. The AEM provides an estimate of the change in area of the noise contours when comparing the Proposed Action Alternative to the No Action Alternative. Per FAA guidance, an increase greater than 17 percent would indicate the need for more in-depth noise studies, such as preparing noise exposure contours with the Integrated Noise Model (INM).

TABLE 4B
Aviation Forecast Summary
Wickenburg Municipal Airport

	2008¹ (Existing Condition)	2012² No Action	2012 Proposed Action	2017² No Action	2017 Proposed Action
Itinerant Operations	32,480	39,380	39,800	39,380	39,800
Local Operations	7,440	9,020	9,100	9,020	9,100
Total Operations	40,320	48,400	48,900	48,400	48,900
Based Aircraft	50	51	51	51	51

Source: Coffman Associates analysis

¹ Interview with Airport Staff, Airport 5010 Form

² FAA *Terminal Area Forecast*

Using the AEM, it is estimated that the noise contour area would increase approximately 0.9 percent as a result of the proposed action, which is below the 17 percent threshold established by FAA. As a result, no additional noise analysis is necessary and no noise impacts will result from implementation of the Proposed Action Alternative.

4.2.9.2 No Action Alternative

The No Action Alternative will not result in changes to future or forecast airport operations. As with the Proposed Action Alternative, the results of the AEM screening process indicated the difference between the Proposed Action and No Action Alternatives is zero.

4.2.9.3 Analysis and Mitigation

Implementation of the Proposed Action Alternative when compared to the No Action Alternative does not result in a significant increase in the Day-Night Noise Level. Therefore, implementation of the Proposed Action Alternative does not exceed any established threshold of impact. No mitigation is required.

4.2.10 Secondary (Induced) Impacts

Major development proposals often involve the potential for induced or secondary impacts on surrounding communities. Examples include shifts in patterns of population movement and growth, public service demands, and changes in business and economic activity to the extent influenced by the airport development. Induced impacts will normally not be significant except where there are also significant impacts in other categories, especially noise, land use, or direct social impacts.

Threshold of Significance

No threshold of significance has been established for this impact category.

4.2.10.1 Proposed Action Alternative

The proposed alternative will not result in the displacement of residences, businesses, or agricultural operations, or result in the division or disruption of established communities. No disruption of orderly or planned development is anticipated as a result of the proposed alternative or other projects planned within the airport environs. Airport projects which have recently been completed, or are planned to be undertaken in the near future, are not anticipated to impact nearby land uses. The proposed action is consistent with the Town of Wickenburg's planning and economic development objectives.

4.2.10.2 No Action

Implementation of the No Action Alternative would not address the needs of existing airport users. This alternative is not consistent with the Town of Wickenburg's airport development plans.

4.2.10.3 Analysis and Mitigation

Implementation of the proposed alternative will result in increased safety and efficiency for existing airport users.

The No Action Alternative would not address the needs of airport users.

No mitigation measures are required.

4.2.11 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety

Socioeconomic impacts known to result from airport improvements are often associated with relocation activities or other community disruptions, including alterations to surface transportation patterns, division or disruption of existing communities, interferences with orderly planned development, or an appreciable change in employment related to the project. Social impacts are generally evaluated based on areas of acquisition and/or areas of significant project impact, such as areas encompassed by noise levels in excess of 65 DNL.

Executive Order 12898, *Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*, and the accompanying Presidential Memorandum, and Order DOT 5610.2, *Environmental Justice*, require FAA to provide for meaningful public involvement by minority and low-income populations as well as analysis that identifies and addresses potential impacts on these populations that may be disproportionately high and adverse.

Pursuant to Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, federal agencies are directed to identify and assess environmental health and safety risks that may disproportionately affect children. These risks include those that are attributable to products or substances that a child is likely to come in contact with or ingest, such as air, food, drinking water, recreational waters, soil, or products they may be exposed to.

Threshold of Significance

The thresholds of significance for this impact category are reached if the project negatively affects a disproportionately high number of minority or low-income populations or if children would be exposed to a disproportionate number of health and safety risks. Significant socioeconomic impacts would result if an extensive number of residents need to be relocated and sufficient replacement housing is unavailable, if extensive relocation of business is required and this relocation would create a severe economic hardship for the affected communities, if disruptions of local traffic patterns would substantially reduce the level of service of the roads serving the airport and the surrounding community, or if there would be a substantial loss in the community tax base.

4.2.11.1 Proposed Action Alternative

Socioeconomic Impacts: The proposed improvements are planned on existing airport property and will not result in the division or disruption of existing communities, nor will they interfere with orderly planned development. A long-term beneficial impact resulting from construction of the apron and access road will be the availability of the airport to provide adequate aircraft parking for existing and future airport users. This is also anticipated to result in a one percent increase in operational growth at the airport.

Environmental Justice: As shown in the analysis in Section 3.3.6 of Chapter Three, there is not a high percentage of minority or low-income populations within the area of the airport. Therefore, the proposed mid-field apron and access road extension will not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Children's Environmental Health and Safety: The construction of the mid-field apron and access road will not change operations of the airport. Therefore, the airport will continue to operate in a manner similar as it does today. Access to substances which could affect a child's health or safety will still be limited. The airport would continue to be restricted to access only by authorized persons, and there would be no increase in the possibility of contact with any substances that would cause harm or risk.

The proposed alternative does not result in the displacement of residences, businesses, or agricultural operations, or result in the division or disruption of established communities. Furthermore, no disruption of orderly or planned development is anticipated as a result of the proposed alternative or other projects planned within the airport environs.

4.2.11.2 No Action Alternative

Socioeconomic impacts and impacts to children's environmental health and safety are not anticipated with implementation of the No Action Alternative as the airport would continue to operate in a manner similar to its current condition.

4.2.11.3 Analysis and Mitigation

Implementation of the Proposed Action or No Action Alternative will not exceed the thresholds of significance previously discussed in this section.

4.2.12 Water Quality

The *Clean Water Act* provides the authority to establish water quality standards, control discharges, develop waste treatment management plans and practices, prevent or minimize the loss of wetlands, and regulate other issues concerning water quality. Water quality concerns related to airport development most often relate to the potential for surface runoff and soil erosion as well as the storage and handling of fuel, petroleum products, solvents, etc.

Water quality regulations and issuance of permits will normally identify any deficiencies in the proposed development with regard to water quality or any additional information necessary to make judgments on the significance of impacts. Difficulties in obtaining needed permits for the project, such as National Pollutant Discharge Elimination System (NPDES) or Section 404 permits, typically indicate a potential for significant water quality impacts.

4.2.12.1 Proposed Action

Approximately 35,000 square yards (apron and access road) of impermeable surfaces will result from the new pavement installation related to the apron and access road extension. Indirect impacts may occur to water quality as an increase in impermeable surfaces occurs in the area.

Construction of the proposed improvements may have limited, short-term effects on surface water quality, particularly an increase in suspended sediments during and shortly after precipitation events in the construction phase. Prior to construction (clearing, grading, or excavating) that disturbs one acre,

the Town of Wickenburg will need to obtain an AZPDES Construction General Permit (AZG2003-001). Short-term water quality impacts will be mitigated through implementation of BMPs.

In addition to the Construction General Permit requirements, an AZPDES Multi-Sector General Permit (MSGP) is required for the airport as it is classified as a Sector S industry by the Arizona Department of Environmental Quality (ADEQ). The MSGP requires that a Storm Water Pollution Prevention Plan (SWPPP) identify BMPs to reduce soil erosion and contain and/or minimize pollutants that might be released to Waters of the U.S. As discussed in Chapter Three, the most recent MSGP for Arizona is MSGP 2000, which expired October 30, 2005. Facilities covered under MSGP 2000, including Wickenburg Municipal Airport, have been granted administrative continuance under the permit. This status will not change until ADEQ issues a new MSGP. Operators already covered under MSGP 2000, such as Wickenburg Municipal Airport, must continue to implement their SWPPP and comply with the requirements in the MSGP 2000.

The EPA re-issued a new MSGP that became effective on Sept. 29, 2008 (MSGP 2008). However, EPA's new MSGP only applies to facilities in states and territories that are not authorized to implement the NPDES program. ADEQ was delegated to administer this program in December 2002; therefore, EPA's MSGP 2008 is only applicable in Arizona to facilities located in Indian Country lands.

The Proposed Action Alternative will place fill in an unnamed wash south of Runway 34 resulting in an impact to approximately 0.31 acres. The placement of fill in this wash requires a Nationwide Permit through Section 404 of the CWA. More details concerning the fill and the Section 404 permit can be found in Section 4.2.12, Wetlands and Waters of the U.S.

4.2.12.2 No Action Alternative

Under the No Action Alternative, no construction will occur. The airport will continue to operate in conformance with Section 402(p) of the *Clean Water Act*.

4.2.12.3 Analysis and Mitigation

The proposed project involves the addition of approximately 35,000 square yards (apron and access road) of impermeable surfaces, which will cause an increase in surface water runoff. A nationwide permit under Section 404 of the CWA is required for the fill to be placed in the unnamed wash south of the parallel taxiway.

Construction of the proposed improvements may have limited, short-term effects on surface water quality, particularly an increase in suspended sediments during and shortly after precipitation events in the construction phase. These impacts are also discussed within Section 4.2.4, Construction Impacts.

No long-term water quality impacts are expected with implementation of the Proposed Action Alternative. Subsurface water will not be required for the project; therefore, no adverse impacts to groundwater resources are anticipated. The proposed improvements will not significantly alter rainfall drainage patterns or contaminate, or otherwise adversely affect, the public water supply, water treatment facilities, or water distribution centers.

4.2.13 Wetlands and Waters of the U.S.

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into Waters of the U.S., including adjacent wetlands, under Section 404 of the *Clean Water Act*.

Wetlands are defined by Executive Order 11990, *Protection of Wetlands*, as those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Categories of wetlands include swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows, mud flats, natural ponds, estuarine areas, tidal overflows, and shallow lakes and ponds with emergent vegetation. Wetlands exhibit three characteristics: hydrology, hydrophytes (plants able to tolerate various degrees of flooding or frequent saturation), and poorly drained soils.

Threshold of Significance

As outlined within FAA Orders 1050.1E and 5050.4B, a significant impact to wetlands would occur when the proposed action causes any of the following:

- The action would adversely affect the function of a wetland to protect the quality or quantity of municipal water supplies, including sole source, potable water aquifers.
- The action would substantially alter the hydrology needed to sustain the functions and values of the affected wetland or any wetlands to which it is connected.
- The action would substantially reduce the affected wetland's ability to retain floodwaters or storm-associated runoff, thereby threatening public health, safety, or welfare.
- The action would adversely affect the maintenance of natural systems that support wildlife and fish habitat or economically important timber, food, or fiber resources in the area or surrounding wetlands.
- The action would be inconsistent with applicable state wetland strategies.

4.2.13.1 Proposed Action Alternative

SWCA prepared a Preliminary Jurisdictional Delineation (JD) in February 2010 to determine the extent of Waters of the U.S. within the project study area through the use of aerial photography, topographic mapping, and field reconnaissance conducted in August 2009. A copy of the JD is contained within **Appendix D**. The fieldwork and computer analysis as part of the JD indicates that two ephemeral drainage features (Washes A and A1) were identified in the proposed project area. These two drainages, totaling 0.64 acres are depicted on **Exhibit 4A** and are considered Waters of the U.S. Additionally, two non-jurisdictional features (culverts) were also identified in the survey area. The culverts drain the infield portion of the airport; these culverts are not considered Waters of the U.S.

The Proposed Action Alternative will place fill in approximately 0.31 acres of the unnamed wash identified as Wash A. As indicated in **Appendix D**, impacts to Waters of the U.S. would result from the

construction of culverts for the access road crossing, the midfield apron, and from stream channelization. These impacts are consistent with the activities authorized under Nationwide Permit (NWP) 39 for Commercial and Institutional Developments. Under NWP 39, notification to the U.S. Army Corps of Engineers (USACE) is required for all projects with impacts to Waters of the US.

According to the requirements of NWP 39 for Commercial and Institutional Developments, the fill must not cause the loss of greater than ½-acre of Waters of the U.S. and no more than 300 linear feet of streambed. In the case of intermittent and ephemeral streambeds, such as those which are present within the project area, the 300 linear foot limit may be waived in writing by the USACE. To support the issuance of the 300 linear foot waiver, the permit application states that due to airport and project-specific site constraints, the waiver is necessary. Constraints include: limited availability of alternate areas at the airport on which to construct the proposed aircraft apron; location of existing facilities on the south side of the runway; and limited availability of space between the runway and the southern airport property line to construct the relocated wash connecting to the existing downstream wash. Based on these constraints, the location of the proposed aircraft apron will disturb the least amount of wash while providing safe and efficient operating areas for airport users.

As part of the Proposed Action, a concrete-lined channel will be constructed to accommodate the flows from Wash A and will reconnect to an existing downstream wash as identified on **Exhibit 4A**. The Town of Wickenburg submitted a Preconstruction Notification Application for the project submitted to the USACE on March 19, 2010.

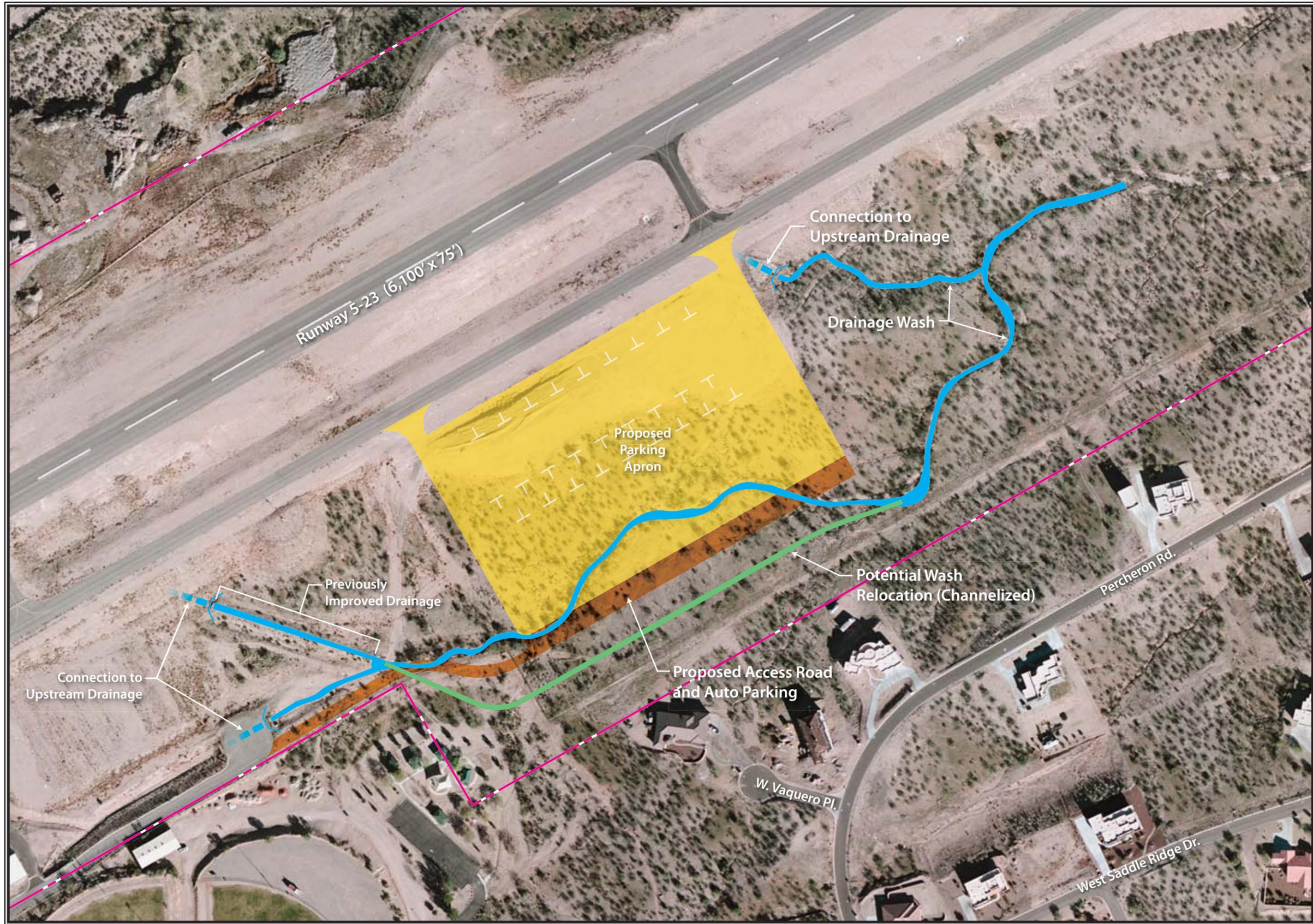
On June 1, 2010, the USACE verified the NWP Preconstruction Notification Application. A copy of the correspondence is included in **Appendix D**. The verification is pending an in-lieu fee (ILF) payment for the mitigation of the 0.31 acres of wash that will be removed as part of the Proposed Action. The payment will be made by the Town of Wickenburg to the Nature Conservancy's Hassayampa River ILF Mitigation Project. The agreement includes a 1:1 mitigation ratio; therefore, the mitigation payment made by the Town of Wickenburg will preserve 0.31 acres within the Hassayampa River Preserve.

4.2.13.2 No Action Alternative

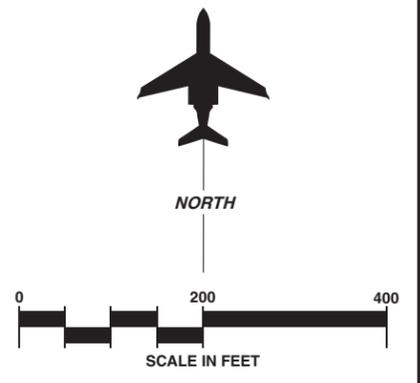
Under the No Action Alternative, no construction will occur. Therefore, there would not be an impact to any Waters of the U.S.

4.2.13.3 Analysis and Mitigation

The Proposed Action Alternative will place fill within an unnamed wash south of the proposed mid-field apron site and impact approximately 0.31 acres of ephemeral washes which fall under the jurisdiction of the USACE. Under the NWP 39 permit, compensatory mitigation may be required by the USACE to ensure that the Proposed Action results in minimal adverse effects on the aquatic environment. As indicated in the permit application, on-site compensatory mitigation for the project is not feasible because significant safety issues associated with airport operations exist. Establishing vegetation near the airport would create habitat for wildlife, which could cause safety issues with aircraft operations. The Town of Wickenburg proposes an in-lieu fee payment with a 1:1 ratio (0.31 acres for 0.31 acres) to The Nature Conservancy's (TNC's) Hassayampa River Preserve, which is located approximately 6 miles southeast of the airport.



- LEGEND**
- Airport Property Line
 - Proposed Parking Apron
 - Proposed Access Road



WICKENBURG
MUNICIPAL AIRPORT

Exhibit 4A
LOCATION OF JURISDICTIONAL
WATERS WITHIN PROJECT AREA

The impacts resulting from this project are occurring to xeroriparian habitats, which have a lower function and values. Additionally, the Hassayampa River Preserve is located in the same watershed as the project area. As previously indicated, coordination with USACE is ongoing.

With implementation of the proposed mitigation measures, it is not anticipated that the Proposed Action will exceed the established threshold of significance for this impact category.

4.3 CUMULATIVE IMPACTS

Analysis of the cumulative overall impact of a Proposed Action Alternative and the consequences of subsequent related actions is required to determine the significance of the impact on the environment resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of the actions' originator.

Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. Cumulative impact analysis considers connected actions, projects related and dependent upon the completion of the proposed airport project, and similar actions or projects having a common geography or timing that provide a basis for considering their impact together with impacts related to the proposed airport project. Cumulative impacts are evaluated on three time horizons: past actions, present action, and reasonably foreseeable actions. Due to limited availability of information regarding past actions, this portion of the analysis is limited to the past five years. Present actions are those projects which are ongoing and will continue during the implementation of the Proposed Action. Reasonably foreseeable actions, for the purposes of this project, are those that have received local approval for implementation, such as a building permit. Planned projects, such as those outlined within a community's General Plan or Specific Plan, are not considered reasonably foreseeable as part of this analysis.

Specific thresholds for cumulative impacts are not established in FAA Order 1050.1E as the significance threshold varies according to the affected resources. In evaluating cumulative impacts, the impact of the proposed action should be added to the impacts of other projects to determine if the significant impact threshold will be exceeded.

Past Actions

As discussed within Chapter Three, Section 3.4, three recent projects have occurred on airport property. These include the construction of the airport's Automated Weather Observing System (AWOS) and the reconstruction of Runway 5-23 and relocation of the parallel taxiway. Additionally, two 10-unit T-hangars and five conventional hangars were constructed on the south side of the runway.

Based on coordination with Town of Wickenburg staff, no major projects have occurred within the past five years within one mile of the airport.

Foreseeable Future Actions

Future projects planned for the airport include construction of a helipad, aircraft wash rack, pavement maintenance, and development of the commercial lease parcels adjacent to the proposed apron. No major projects are planned within the immediate vicinity of the airport.

No agencies indicated concerns regarding potential cumulative impacts during the agency scoping process undertaken at the onset of this EA. Resource issues that are appropriate for analysis under a cumulative impact assessment are addressed below. These categories were identified for cumulative impact analysis because of the impacts caused by the Proposed Action. Much of the discussion contained within the following sections is also reflected within the various impact analyses in Section 4.2. The discussions have been consolidated within this section to summarize the qualitative cumulative impact analysis which was completed for the project.

AIR QUALITY

The geographic scope of the air quality analysis is limited to the Town Limits of Wickenburg. Construction impacts will be short-term and localized to the project site. Construction emissions are attributed to vehicular emissions related to construction as well as dust resulting from ground disturbance and building construction. It is not expected that these projects, cumulatively, will result in air quality impacts which exceed the stated threshold of significance.

WATER QUALITY

The geographic scope of the water quality cumulative impact analysis is limited to the Upper Hassayampa River watershed, which includes the Town of Wickenburg and the airport. Cumulative water quality impacts resulting from development projects in the area may result in short-term impacts to water quality. These impacts will be mitigated using BMPs. In addition, the increase of impermeable surfaces in the area will result in the increase of storm water runoff.

During the process of obtaining and modifying permits, review by agencies having jurisdiction over water supply and quality issues would be conducted. The permit programs implemented by these agencies take into account the cumulative impact of actions and projects on the regulated resources. Periodic program reviews are conducted to ensure that the loss of regulated resources authorized through the permit programs do not constitute an individual or cumulatively unacceptable impact. The Proposed Action Alternative, as well as all reasonably foreseeable actions, will be subject to this regulatory review process, as applicable.

WETLANDS AND WATERS OF THE U.S.

The geographic scope of the wetlands and Waters of the U.S. cumulative impact analysis is limited to the Upper Hassayampa River watershed, which, as stated previously, includes the Town of Wickenburg and the airport. As previously noted, impacts to 0.31 acres of Waters of the U.S. will occur during implementation of the proposed action. To offset these impacts, the Town of Wickenburg proposes mitigation at a ratio of 1:1 to The Nature Conservancy's (TNC's) Hassayampa River Preserve, which is located approximately 6 miles southeast of the airport. Through the proposed mitigation, the Hassayampa River Preserve, which is located within the same watershed as the project area, in-lieu fees will be used to revegetate areas within the preserve which contain highly-valued habitat.



Appendix A

REFERENCES AND PREPARERS

Appendix A

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REFERENCES

The following documents and websites were utilized during the preparation of this Environmental Assessment:

Wickenburg Municipal Airport Master Plan, September 2003, Coffman Associates, Inc.

Town of Wickenburg General Plan, August 2003, Community Services Corporation

Biological Evaluation of the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona, February 2010, SWCA Environmental Consultants

Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona, February 2010, SWCA Environmental Consultants

Preliminary Jurisdictional Delineation for the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona, February 2010, SWCA Environmental Consultants

Federal Aviation Administration (FAA), FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, March 2006

FAA, FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, April 2006

FAA, *National Plan of Integrated Airport Systems 2009-2013*

Advisory Circular 150/5300-13, *Airport Design*

United States Department of Agriculture – Natural Resources Conservation Service, NCSS Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/>

United States Census Bureau, *U.S. Census 2000*, <http://www.census.gov/main/www/cen2000.html>

U.S. Environmental Protection Agency, *EnviroMapper*, <http://www.epa.gov/>

U.S. Environmental Protection Agency, *Green Book Nonattainment Areas for Criteria Pollutants*, <http://www.epa.gov/oar/oaqps/greenbk/>

U.S. Fish and Wildlife Service, *Endangered Species List*, <http://www.fws.gov/southwest/es/EndangeredSpecies/lists/>

PREPARERS

Persons responsible for preparation of this Environmental Assessment document and significant supporting background analysis and materials are listed below.

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
PREPARERS		
FAA Reviewer		
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Coffman Associates		
Steve Benson, P.E.	Airport Master Planning, Operations Forecasting, Environmental Analysis and Documentation	B.S., Civil Engineering. 30 years' experience in airport master planning, site selection, and environmental documentation.
Kory Lewis	Land Use Planning, Environmental Analysis and Documentation, Noise Monitoring and Assessment, Air Quality Analysis	B.A., Geography; Masters, Urban Planning. Four years' experience in land use management and noise assessment, two years' experience in environmental documentation of various development projects.
Molly Waller	Land Use Planning, Environmental Analysis and Documentation, Noise Assessment and Documentation	Masters, Community and Regional Planning. Ten years' experience in environmental evaluations of various projects, six years' experience in land use management and noise assessment.
SWCA Environmental Consultants		
Russell Waldron	Clean Water Act Specialist/Biologist	B.S., Business and Public Administration (1986); B.S., School of Natural Resources (1994) with more than 16 years of experience conducting fieldwork, including wetland delineations, and preparing reports for compliance with Sections 401, 402 and 404 of the <i>Clean Water Act (CWA)</i> .
Jeremy Doschka	Biologist	B.A. Anthropology. M.S. Natural Resources. Four years experience in conducting biological evaluations, jurisdictional water delineations, and native plant surveys. This includes conducting fieldwork and preparing reports for compliance with the Endangered Species Act and Section 404 of the <i>Clean Water Act</i> .

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
PREPARERS (Continued)		
SWCA Environmental Consultants		
Annmarie Kmetz	Archaeologist	M.A. in Heritage Resources. Seven years experience as a professional archaeologist with the U.S. Forest Service and the National Park Service, as well as the private sector. Experience includes cultural resources survey, testing and data recovery, as well as Section 106 evaluations and National Register of Historic Places nominations.
Eleanor R. Gladding	Senior Biologist/Project Manager	M.S., Biology. 15 years of biological experience and 10 years of environmental consulting experience, including 6 years of experience doing environmental resource work for airport projects. Her responsibilities include managing projects, conducting fieldwork, and preparing reports for compliance with the NEPA, ESA, and CWA.



Appendix B

AIRPORT REFERENCE CODE INFORMATION

Appendix B

AIRPORT REFERENCE CODE INFORMATION

The purpose of this appendix is to provide an overview of Federal Aviation Administration (FAA) airport design characteristics as outlined in Advisory Circular (AC) 150/5300-13, Change 11, *Airport Design*.

AIRFIELD DESIGN STANDARDS

The selection of appropriate FAA design standards for the development and location of airport facilities is based primarily upon the characteristics of the aircraft which are currently using or expected to use the airport. The critical design aircraft is defined as the most demanding category of aircraft, or family of aircraft, which conducts at least 500 operations per year at the airport. Planning for future aircraft use is of particular importance since design standards are used to plan separation distances between facilities. These future standards must be considered now to ensure that short term development does not preclude the long range potential needs of the airport.

The FAA has established a coding system to relate airport design criteria to the operational and physical characteristics of aircraft expected to use the airport. This airport reference code (ARC) has two components. The first component, depicted by a letter, is the aircraft approach category and relates to aircraft approach speed (operational characteristic). The second component, depicted by a Roman numeral, is the airplane design group and relates to the aircraft wingspan or tail height (physical characteristic). Generally, aircraft approach speed applies to runways and runway-related facilities, while airplane wingspan primarily relates to separation criteria involving taxiways, taxilanes, and landside facilities. **Exhibit B1** depicts typical aircraft within each ARC.

According to AC 150/5300-13, Change 11, *Airport Design*, an aircraft’s approach category is based upon 1.3 times its stall speed in landing configuration at that aircraft’s maximum certificated weight. The five approach categories used in airport planning are as follows:

Category A: Speed less than 91 knots.

Category B: Speed 91 knots or more, but less than 121 knots.

Category C: Speed 121 knots or more, but less than 141 knots.

Category D: Speed 141 knots or more, but less than 166 knots.

Category E: Speed greater than 166 knots.

The airplane design group (ADG) is based upon either the aircraft’s wingspan or tail height, whichever is greater. For example, an aircraft may fall in ADG II for wingspan at 70 feet, but ADG III for tail height at 33 feet. Following FAA standards, this aircraft would be classified under ADG III as the tail height falls within a higher ADG. The six ADGs used in airport planning are as follows :

Airplane Design Group	Tail Height (feet)	Wingspan (feet)
I	Less than 20	Less than 49
II	Greater than 20, but less than 30	Greater than 49, but less than 79
III	Greater than 30, but less than 45	Greater than 79, but less than 118
IV	Greater than 45, but less than 60	Greater than 118, but less than 171
V	Greater than 60, but less than 66	Greater than 171, but less than 214
VI	Greater than 66, but less than 80	Greater than 214, but less than 262

Source: AC 150/5300-13, Change 11

In order to determine airfield design requirements, the critical aircraft and critical ARC should first be determined and then appropriate airport design criteria can be applied. This begins with a review of aircraft currently using the airport and those expected to use the airport through the planning period.

CRITICAL AIRCRAFT

During the preparation of the 2000 Wickenburg Airport Master Plan, it was determined that, based on aircraft operations, the critical design aircraft in the near term is ARC B-II. Analysis conducted during the master planning process revealed the fleet mix at the airport was changing and included increasing operations by ARC B-II aircraft. This increase in operations triggered the need to upgrade the airport to meet FAA ARC B-II design standards as outlined in FAA AC 150/5300. Specific improvements made to accommodate ARC B-II aircraft included the extension of Runway 5-23 to 6,100 feet and the relocation of Taxiway A 40 feet to the southeast to provide a runway/taxiway centerline to centerline separation of 240 feet. The projects were evaluated fully within a 2004 Environmental Assessment (EA) and have since been completed.

A-I



- Beech Baron 55
- Beech Bonanza
- Cessna 150
- Cessna 172
- Cessna Citation Mustang
- **Eclipse 500**
- Piper Archer
- Piper Seneca

C-I, D-I



- Beech 400
- **Lear** 25, 31, **35**, 45, 55, 60
- Israeli Westwind
- HS 125-400, 700

B-I *less than 12,500 lbs.*



- Beech Baron 58
- Beech King Air 100
- Cessna 402
- **Cessna 421**
- Piper Navajo
- Piper Cheyenne
- Swearingen Metroliner
- Cessna Citation I

C-II, D-II



- Cessna Citation III, VI, VIII, X
- **Gulfstream II, III, IV**
- Canadair 600
- ERJ-135, 140, 145
- CRJ-200, 700, 900
- Embraer Regional Jet
- Lockheed JetStar
- Super King Air 350

B-II *less than 12,500 lbs.*



- **Super King Air 200**
- Cessna 441
- DHC Twin Otter

C-III, D-III



- ERJ-170, 190
- Boeing Business Jet
- B 727-200
- **B 737-300 Series**
- MD-80, DC-9
- Fokker 70, 100
- A319, A320
- Gulfstream V
- Global Express

B-I, B-II *over 12,500 lbs.*



- Super King Air 300
- Beech 1900
- Jetstream 31
- Falcon 10, 20, 50
- Falcon 200, 900
- **Citation II, III, IV, V**
- Saab 340
- Embraer 120

C-IV, D-IV



- **B-757**
- B-767
- C-130
- DC-8-70
- DC-10
- MD-11
- L1011

A-III, B-III



- DHC Dash 7
- **DHC Dash 8**
- DC-3
- Convair 580
- Fairchild F-27
- ATR 72
- ATP

D-V



- **B-747 Series**
- B-777

Note: Aircraft pictured is identified in bold type.

WICKENBURG
MUNICIPAL AIRPORT



Appendix C

PROJECT SCOPING MATERIALS AND AGENCY COORDINATION

Appendix C

PROJECT SCOPING MATERIALS AND AGENCY COORDINATION

The purpose of this appendix is to provide additional background information regarding the proposed land acquisition within this Environmental Assessment (EA). At the onset of the EA, letters were sent to the following entities seeking input regarding potential environmental resources which could be impacted by the proposed land acquisition. A copy of the letter sent to the agencies listed below and the response received (if any) follows the table of contents within this appendix.

WICKENBURG MUNICIPAL AIRPORT AGENCY CONTACT LIST

FEDERAL

Ms. Brenda Smith
Assistant Field Supervisor for Northern
Arizona
U.S. Department of the Interior,
Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 W. Royal Palm Rd., Suite 103
Phoenix, AZ 85021

Ms. Cindy Lester
Chief, Arizona Section Regulatory Branch
U.S. Army Corps of Engineers
Los Angeles District
3636 N. Central Avenue, Suite 900
Phoenix, AZ 85012

Ms. Roxanne Runkel
Planning Technician
U.S. Department of the Interior
National Park Service
Intermountain Region
12795 West Alameda Parkway
PO Box 25287
Denver, CO 80225-0287

Elaine Raper, Acting District Manager
Bureau of Land Management
Hassayampa Field Office
21605 North 7th Avenue
Phoenix, AZ 85027-2929

Mr. Bruce Ellis
Chief Environmental Officer
Bureau of Reclamation
P.O. Box 81169
Phoenix, AZ 85069

Ms. Rosalyn Johnson
Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Mr. Stephen G. Smarik
Environmental Specialist
USDA NRCS
230 N. First Ave., Suite 509
Phoenix, AZ 85003-1706

STATE - ARIZONA

Mr. Jim Sedillo
Northern Regional Office Manager
**Arizona Department of Environmental
Quality**
1515 East Cedar Avenue, Suite F
Flagstaff, AZ 86004

Joan Card
Director
**Arizona Department of Environmental
Quality**
Water Quality Division
1110 W. Washington Street
Phoenix, AZ 85007

Amanda Stone
Director
**Arizona Department of Environmental
Quality**
Waste Programs Division
1110 W. Washington Street
Phoenix, AZ 85007

Henry Darwin
Director
**Arizona Department of Environmental
Quality**
Air Quality Division
1110 W. Washington Street
Phoenix, AZ 85007

Mr. David Jacobs
Compliance Specialist/Archaeologist
State Historic Preservation Office
1300 W. Washington
Phoenix, AZ 85007

Ms. Sabra S. Schwartz, Coordinator
Heritage Data Management System
State of Arizona Game and Fish
2221 W. Greenway Road
Phoenix, AZ 85023

Mr. Bruce Campbell
Environmental Program Specialist
Arizona State Land Department
1616 W. Adams Street
Phoenix, AZ 85007

LOCAL

Mr. Steve McKay
Community Services Director
Town of Wickenburg
155 N. Tegner St.
Wickenburg, AZ 85390

Mr. Steve Boyle
Community Development Director
Town of Wickenburg
155 N Tegner St, Suite A
Wickenburg, AZ 85390

Mr. Harry Wolfe
Aviation Coordinator
Maricopa Association of Governments
301 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

Renee Ayres-Benavidez
Director
**Maricopa County Community
Development Department**
234 N Central Avenue, Third Floor
Phoenix, AZ 85004

Lawrence Odle,
Director
Maricopa County Air Quality Department
1001 N Central Ave, Suite 900
Phoenix, AZ 85004

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Letter from United States Department of the Interior, National Park Service.....	C-11
Letter from State Historic Preservation Office	C-13
Letter from the State of Arizona, Department of Environmental Quality, Air Quality.....	C-14
Letter from the State of Arizona, Department of Environmental Quality, Water Quality	C-19
Letter from the State of Arizona, Department of Environmental Quality, Air Quality.....	C-21
Letter from U.S. Fish and Wildlife Service	C-22



TOWN OF WICKENBURG

155 N. Tegner, Ste. A, Wickenburg, Arizona 85390 (928) 684-5451
Phoenix Line (602) 506-1622 FAX (602) 506-1580

January 25, 2010

Ms. Brenda Smith
U.S. Department of the Interior
Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 W. Royal Palm Rd., Suite 103
Phoenix, AZ 85021

Dear Ms. Smith:

***Environmental Assessment for Mid Field Apron and Access Road Improvements at
Wickenburg Municipal Airport***

The Town of Wickenburg, as owner of Wickenburg Municipal Airport, intends to prepare an Environmental Assessment (EA), pursuant to the requirements of Section 102(2) of the *National Environmental Policy Act (NEPA) of 1969* and by the Federal Aviation Administration (FAA) as contained in FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *Airport Environmental Handbook*. The Town of Wickenburg's proposed project is to construct an approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport. The FAA is the lead agency for the project.

The Town of Wickenburg is soliciting your comments regarding environmental or social resources and sensitivities potentially associated with or affected by the proposed mid-field apron and associated access road project. To assist you with your review of the proposed airport development, exhibits depicting the general location of the airport (**Exhibit A**), the overall layout of the airport (**Exhibit B**) and an exhibit that depicts the proposed airport improvements (**Exhibit C**) are included for your reference. We are also seeking your input regarding any potential cumulative impacts that may occur upon project implementation.

The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road located on the south side of the airport. The access road will be equipped with a security gate to restrict access to only those with permission to enter the south side hangar and apron areas. The airport apron and access road will be located on airport property and are needed to replace transient and based aircraft parking areas lost as a result of hangar development to the west of the project site. Hangars were constructed on the previous apron area located west of the project site.

Anticipated environmental impacts resulting from the proposed mid-field apron project relate primarily to the relocation and channelization of a wash located within the project site. The location of the wash and the proposed realignment are depicted on **Exhibit C**. The proposed parking apron will meet the needs of existing and forecast future airport users, as described in the Wickenburg Municipal Airport Master Plan, 2002.

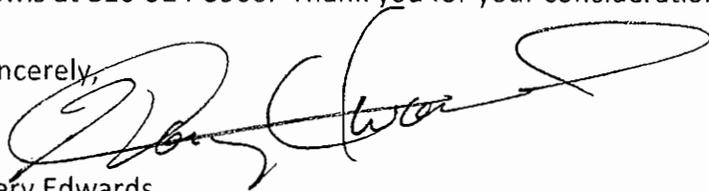
Please send any written comments to our consultant Kory Lewis at the address below by February 26, 2010. As another option, you may fax or e-mail your comments to the number or e-mail address below.

Address: Kory Lewis
Airport Planner
Coffman Associates Inc.
237 NW Blue Parkway, Suite 100
Lee's Summit, MO 64063

FAX: 816.524.2575
E-mail: klewis@coffmanassociates.com

If you have any questions or need additional information, please feel free to contact me or Kory Lewis at 816-524-3500. Thank you for your consideration and timely response.

Sincerely,



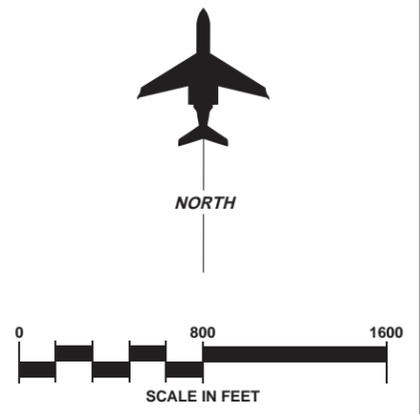
Gary Edwards
Town Manager
Town of Wickenburg

Enclosures (3)

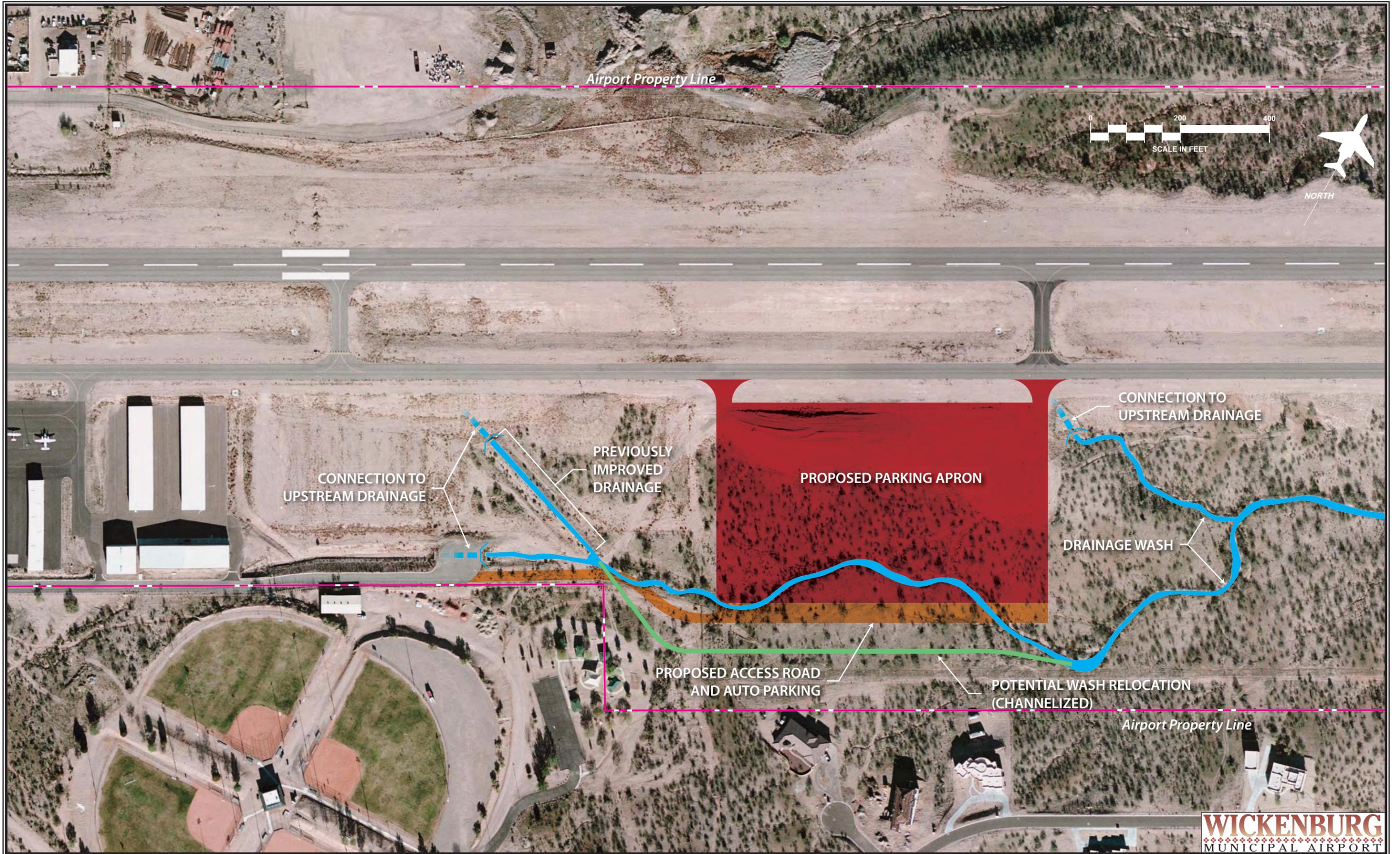
Cc Mr. Kory Lewis, Coffman Associates



- LEGEND**
- - - Airport Property Line
 - Proposed Parking Apron
 - Proposed Access Road



WICKENBURG
MUNICIPAL AIRPORT





DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE, SUITE 900
PHOENIX, ARIZONA 85012-1939

January 28, 2010

REPLY TO
 ATTENTION OF:
 Office of the Chief
 Regulatory Division

RECEIVED
 FEB 03 2010

BY:.....

Gary Edwards
 Town Manager
 Town of Wickenburg
 155 North Tegner, Suite A
 Wickenburg, Arizona 85390

RECEIVED
 JAN 2 2010
 TOWN MANAGER

File Number: SPL-2010-00110-RWF

Dear Mr. Edwards:

The Corps of Engineers has received your letter of January 25, 2010, advising us of your plans to construct an approximate 30,000 square foot mid-field aircraft parking apron and associated access road that would be situated on the south side of Runway 5-23, at the Wickenburg Municipal Airport (Section 8, T7N, R5W) in the Town of Wickenburg, Maricopa County, Arizona.

Please be advised that the construction of the proposed 30,000 square foot aircraft parking apron and associated access road may require a Department of the Army permit issued under Section 404 of the Clean Water Act. A Section 404 permit is required for the discharge of dredged or fill material into the "waters of the United States," including adjacent wetlands. Examples of activities requiring a permit are placing bank protection, temporary or permanent stock-piling of excavated material, grading roads, grading (including vegetative clearing operations) that involves the filling of low areas or leveling the land, constructing weirs or diversion dikes, constructing approach fills, and discharging dredged or fill material as part of any other activity.

For your information and use, I am enclosing a permit application form and an informational pamphlet that describes the various regulatory programs that may be applicable to your proposed project.

Thank you for your support and compliance with our regulatory program. If you have questions, please contact me at (602) 640-5385 X226. Please refer to file number SPL-2010-00110-RWF in your reply.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Fowler", is written over a printed name.

Ron Fowler
Senior Project Manager,
Arizona Branch, Regulatory Division

Enclosure(s)



TOWN OF WICKENBURG

155 N. Tegner, Ste. A, Wickenburg, Arizona 85390 (928) 684-5451
Phoenix Line (602) 506-1622 FAX (602) 506-1580

January 25, 2010

Ms. Roxanne Runkel
U.S. Department of the Interior
National Park Service, Intermountain Region
PO Box 25287
Denver, CO 80225-0287



The National Park Service reviewed this project, and determined that no parks will be affected; therefore, we have no comments.

Signed:  Date: 2/2/10

Dear Ms. Runkel:

Environmental Assessment for Mid Field Apron and Access Road Improvements at Wickenburg Municipal Airport

The Town of Wickenburg, as owner of Wickenburg Municipal Airport, intends to prepare an Environmental Assessment (EA), pursuant to the requirements of Section 102(2) of the *National Environmental Policy Act (NEPA) of 1969* and by the Federal Aviation Administration (FAA) as contained in FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *Airport Environmental Handbook*. The Town of Wickenburg's proposed project is to construct an approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport. The FAA is the lead agency for the project.

The Town of Wickenburg is soliciting your comments regarding environmental or social resources and sensitivities potentially associated with or affected by the proposed mid-field apron and associated access road project. To assist you with your review of the proposed airport development, exhibits depicting the general location of the airport (**Exhibit A**), the overall layout of the airport (**Exhibit B**) and an exhibit that depicts the proposed airport improvements (**Exhibit C**) are included for your reference. We are also seeking your input regarding any potential cumulative impacts that may occur upon project implementation.

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Anticipated environmental impacts resulting from the proposed mid-field apron project relate primarily to the relocation and channelization of a wash located within the project site. The location of the wash and the proposed realignment are depicted on **Exhibit C**. The proposed parking apron will meet the needs of existing and forecast future airport users, as described in the Wickenburg Municipal Airport Master Plan, 2002.

Please send any written comments to our consultant Kory Lewis at the address below by February 26, 2010. As another option, you may fax or e-mail your comments to the number or e-mail address below.

Address: Kory Lewis
Airport Planner
Coffman Associates Inc.
237 NW Blue Parkway, Suite 100
Lee's Summit, MO 64063

FAX: 816.524.2575
E-mail: klewis@coffmanassociates.com

If you have any questions or need additional information, please feel free to contact me or Kory Lewis at 816-524-3500. Thank you for your consideration and timely response.

Sincerely,



Gary Edwards
Town Manager
Town of Wickenburg

Enclosures (3)

Cc Mr. Kory Lewis, Coffman Associates

February 2, 2010

Kory Lewis
Airport Planner
Coffman Associates
237 N.W. Blue Parkway, Suite 100
Lee's Summit, MO 64063

RE: Environmental Assessment for Mid Field Apron/Access Road
Wickenburg Municipal Airport
SHPO-2010-0177 (76464)

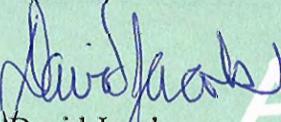
Kory Lewis:

Thank you for initiating consultation with the Arizona State Historic Preservation Office (SHPO) pursuant to the National Historic Preservation Act as implemented by 36 CFR Part 800 regarding the above project. We appreciate your cooperation with this office in considering the impacts of development on cultural resources situated in Arizona. We have reviewed the submitted materials and offer the following comments.

Based on our records, the areas surrounding the existing airport have not been inspected for cultural resources, and these areas along the wash located within the project area were likely used during prehistoric and historic times. We recommend that the areas proposed for development be inspected for cultural resources by a qualified cultural resources specialist.

If you have any questions or comments, please contact me at (602) 542-7140 or electronically via djacobs@azstateparks.gov.

Sincerely,



David Jacobs
Compliance Specialist/Archaeologist
State Historic Preservation Office

CC: Gary Edwards, Town of Wickenburg



Janice K. Brewer
Governor

State Parks
Board Members

Chair
Reese Woodling
Tucson

Tracey Westerhausen
Phoenix

Larry Landry
Phoenix

Walter D. Armer, Jr.
Vail

Arlan Colton
Tucson

William C. Scalzo
Phoenix

Maria Baier
State Land
Commissioner

Renée E. Bahl
Executive Director

Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Tel & TTY: 602.542.4174
AZStateParks.com

800.285.3703 from
(520 & 928) area codes

General Fax:
602.542.4180

Director's Office Fax:
602.542.4188

Arizona®
State Parks





Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Benjamin H. Grumbles
Director

February 3, 2010

Kory Lewis, Airport Planner
Coffman Associates, Inc.
237 NW Blue Parkway, Suite 100
Lee's Summit, MO 64063

Re: Maricopa County: Town of Wickenburg, Arizona – EA for Mid-Field Apron and Access Road Improvements at Wickenburg Municipal Airport

Dear Mr. Lewis:

The Air Quality Division has reviewed the proposed project, described in your scoping letter of January 25, 2010, regarding the proposed construction of an approximately 30,000 square foot mid-field aircraft parking apron and associated access road improvements. The project is located in an attainment area for air pollutants but it borders on a nonattainment area for 10-micron particulate matter (PM10).

Therefore, considering prevailing winds during construction activities, to comply with other applicable air pollution control requirements and minimize adverse impacts on public health and welfare, the following information is provided for your consideration:

REDUCE DISTURBANCE of PARTICULATE MATTER during CONSTRUCTION

This action, plan or activity may temporarily increase ambient particulate matter (dust) levels. Particulate matter 10 microns in size and smaller can penetrate the lungs of human beings and animals and is subject to a National Ambient Air Quality Standard (NAAQS) to protect public health and welfare. Particulate matter 2.5 microns in size and smaller is difficult for lungs to expel and has been linked to increases in death rates; heart attacks by disturbing heart rhythms and increasing plaque and clotting; respiratory infections; asthma attacks and cardiopulmonary obstructive disease (COPD) aggravation. It is also subject to a NAAQS.

The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off the construction site:

- I. Site Preparation and Construction
 - A. Minimize land disturbance;

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

- B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air
 - C. Cover trucks when hauling soil;
 - D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
 - E. Stabilize the surface of soil piles; and
 - F. Create windbreaks
- II. Site Restoration
- A. Revegetate any disturbed land not used;
 - B. Remove unused material; and
 - C. Remove soil piles via covered trucks.

The following rules applicable to reducing dust during construction, demolition and earth moving activities are enclosed:

- ☑ Arizona Administrative Code R18-2-604 through -607
- ☑ Arizona Administrative Code R18-2-804
- ☑ Maricopa County Code Rules 310 and 310.01

Should you have further questions, please do not hesitate to call Bonnie Cockrell at (602) 771-2378 or Dave Biddle at (602) 771-2376 of the Planning Section Staff.

Very truly yours,



Diane L Arnst, Manager
Air Quality Planning Section

Enclosures

cc: Bret Parke, EV Administrative Counsel
David A. Biddle, Environmental Program Specialist
File No. 228071

- c. If the burning would occur at a solid waste facility in violation of 40 CFR 258.24 and the Director has not issued a variance under A.R.S. § 49-763.01.
- E. Open outdoor fires of dangerous material. A fire set for the disposal of a dangerous material is allowed by the provisions of this Section, when the material is too dangerous to store and transport, and the Director has issued a permit for the fire. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The Director shall permit fires for the disposal of dangerous materials only when no safe alternative method of disposal exists, and burning the materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts that will endanger health or safety.
- F. Open outdoor fires of household waste. An open outdoor fire for the disposal of household waste is allowed by provisions of this Section when permitted in writing by the Director or a delegated authority. A permit issued under this subsection shall contain all provisions in subsection (D)(3) except for subsections (D)(3)(e) and (D)(3)(f). The permittee shall conduct open outdoor fires of household waste in an approved waste burner and shall either:
1. Burn household waste generated on-site on farms or ranches of 40 acres or more where no household waste collection or disposal service is available; or
 2. Burn household waste generated on-site where no household waste collection and disposal service is available and where the nearest other dwelling unit is at least 500 feet away.
- G. Permits issued by a delegated authority. The Director may delegate authority for the issuance of open burning permits to a county, city, town, air pollution control district, or fire district. A delegated authority may not issue a permit for its own open burning activity. The Director shall not delegate authority to issue permits to burn dangerous material under subsection (E). A county, city, town, air pollution control district, or fire district with delegated authority from the Director may assign that authority to one or more private fire protection service providers that perform fire protection services within the county, city, town, air pollution control district, or fire district. A private fire protection provider shall not directly or indirectly condition the issuance of open burning permits on the applicant being a customer. Permits issued under this subsection shall comply with the requirements in subsection (D)(3) and be in a format prescribed by the Director. Each delegated authority shall:
1. Maintain a copy of each permit issued for the previous five years available for inspection by the Director;
 2. For each permit currently issued, have a means of contacting the person authorized by the permit to set an open fire if an order to extinguish open burning is issued; and
 3. Annually submit to the Director by May 15 a record of daily burn activity, excluding household waste burn permits, on a form provided by the Director for the previous calendar year containing the information required in subsections (D)(3)(e) and (D)(3)(f).
- H. The Director shall hold an annual public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.
- I. Nothing in this Section is intended to permit any practice that is a violation of any statute, ordinance, rule, or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-802, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 10 A.A.R. 388, effective March 16, 2004 (Supp. 04-1).

R18-2-603. Repealed

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-803, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4). Repealed effective October 8, 1996 (Supp. 96-4).

R18-2-604. Open Areas, Dry Washes, or Riverbeds

- A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.
- B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
- C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-608. Mineral Tailings

No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

Historical Note

Section R18-2-608 renumbered from R18-2-408, new Section R18-2-408 adopted effective November 15, 1993 (Supp. 93-4).

R18-2-609. Agricultural Practices

A person shall not cause, suffer, allow, or permit the performance of agricultural practices outside the Phoenix and Yuma planning areas, as defined in 40 CFR 81.303, which is incorporated by reference in R18-2-210, including tilling of land and application of fertilizers without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-609 renumbered from R18-2-409 effective November 15, 1993 (Supp. 93-4). Amended by final rulemaking at 6 A.A.R. 2009; effective May 12, 2000 (Supp. 00-2). Amended by final rulemaking at 11 A.A.R. 2210, effective July 18, 2005 (Supp. 05-2).

R18-2-610. Definitions for R18-2-611

The definitions in Article 1 of this Chapter and the following definitions apply to R18-2-611:

1. "Access restriction" means restricting or eliminating public access to noncropland with signs or physical obstruction.
2. "Aggregate cover" means gravel, concrete, recycled road base, caliche, or other similar material applied to noncropland.
3. "Artificial wind barrier" means a physical barrier to the wind.
4. "Best management practice" means a technique verified by scientific research, that on a case-by-case basis is practical, economically feasible, and effective in reducing PM₁₀ emissions from a regulated agricultural activity.
5. "Chemical irrigation" means applying a fertilizer, pesticide, or other agricultural chemical to cropland through an irrigation system.
6. "Combining tractor operations" means performing two or more tillage, cultivation, planting, or harvesting operations with a single tractor or harvester pass.
7. "Commercial farm" means 10 or more contiguous acres of land used for agricultural purposes within the boundary of the Maricopa PM₁₀ nonattainment area.
8. "Commercial farmer" means an individual, entity, or joint operation in general control of a commercial farm.
9. "Committee" means the Governor's Agricultural Best Management Practices Committee.
10. "Cover crop" means plants or a green manure crop grown for seasonal soil protection or soil improvement.
11. "Critical area planting" means using trees, shrubs, vines, grasses, or other vegetative cover on noncropland.
12. "Cropland" means land on a commercial farm that:
 - a. Is within the time-frame of final harvest to plant emergence;
 - b. Has been tilled in a prior year and is suitable for crop production, but is currently fallow; or
 - c. Is a turn-row.

ARTICLE 8. EMISSIONS FROM MOBILE SOURCES (NEW AND EXISTING)

R18-2-801. Classification of Mobile Sources

- A. This Article is applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations.
- B. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-801 renumbered to Section R18-2-901, new Section R18-2-801 renumbered from R18-2-601 effective November 15, 1993 (Supp. 93-4).

R18-2-802. Off-road Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. Off-road machinery shall include trucks, graders, scrapers, rollers, locomotives and other construction and mining machinery not normally driven on a completed public roadway.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-802 renumbered to Section R18-2-902, new Section R18-2-802 renumbered from R18-2-602 effective November 15, 1993 (Supp. 93-4).

R18-2-803. Heater-planer Units

No person shall cause, allow or permit to be emitted into the atmosphere from any heater-planer operated for the purpose of reconstructing asphalt pavements smoke the opacity of which exceeds 20%. However three minutes' upset time in any one hour shall not constitute a violation of this Section.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-803 renumbered to Section R18-2-903, new Section R18-2-803 renumbered from R18-2-603 effective November 15, 1993 (Supp. 93-4).

R18-2-804. Roadway and Site Cleaning Machinery

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

R18-2-805. Asphalt or Tar Kettles

- A. No person shall cause, allow or permit to be emitted into the atmosphere from any asphalt or tar kettle smoke for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%.
- B. In addition to complying with subsection (A), no person shall cause, allow or permit the operation of an asphalt or tar kettle without minimizing air contaminant emissions by utilizing all of the following control measures:
1. The control of temperature recommended by the asphalt or tar manufacturer;
 2. The operation of the kettle with lid closed except when charging;
 3. The pumping of asphalt from the kettle or the drawing of asphalt through cocks with no dipping;
 4. The dipping of tar in an approved manner;
 5. The maintaining of the kettle in clean, properly adjusted, and good operating condition;
 6. The firing of the kettle with liquid petroleum gas or other fuels acceptable to the Director.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-805 renumbered to Section R18-2-905, new Section R18-2-805 renumbered from R18-2-605 effective November 15, 1993 (Supp. 93-4).



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Benjamin H. Grumbles
Director

February 16, 2010

Kory Lewis, Airport Planner
Coffman Associates, Inc.
237 NW Blue Parkway, Suite 100
Lee's Summit, MO 64063

SENT VIA E-MAIL: klewis@coffmanassociates.com

Re: Environmental Assessment for Town of Wickenburg Municipal Airport

Dear Mr. Lewis:

We received the January 25, 2010 letter from the Town of Wickenburg requesting comments for the Environmental Assessment on the proposed project to the Town's Municipal Airport. The project would: (1) construct a 30,000 square foot mid-field aircraft parking apron and associated access roads, and (2) relocate and channelize a wash located within the project site. The Arizona Department of Environmental Quality, Water Quality Division (ADEQ) is responsible for ensuring the delivery of safe drinking water to customers of regulated public water systems under the Safe Drinking Water Act, permits for proposed discharges to surface waters of the United States under the federal Clean Water Act (CWA), permits under the state Aquifer Protection Program, and water quality certifications of certain federal licenses and permits. With the information provided, ADEQ would like to make you aware of some water quality issues that may need to be considered.

Stormwater: Stormwater discharges associated with construction activities (clearing, grading, or excavating) that disturb one acre or more must obtain a general permit for coverage of stormwater discharges under the Arizona Pollutant Discharge Elimination System's (AZPDES) Construction General Permit. As part of permit coverage, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared, and implemented during the course of construction. The SWPPP must comply with ADEQ's Construction General Permit's SWPPP requirements, and must identify such elements as the project scope, anticipated acreage of land disturbance, and the best management practices that would be implemented to reduce soil erosion, and contain or minimize the pollutants that might be released to waters of the U.S. In addition to preparing the SWPPP, the project proponent must file for permit coverage before construction. If the Municipal Airport project will disturb the applicable acreage, then Construction General Permit coverage is required. The Construction General Permit, SWPPP checklist, and associated forms are available on ADEQ's website at:

<http://www.azdeq.gov/environ/water/permits/stormwater.html#const>. For questions, please

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

contact Chris Henninger in our Stormwater and General Permits Unit at (602) 771-4508 or by e-mail at cph@azdeq.gov.

CWA 401 Water Quality Certification: If project activities will occur inside the Ordinary High Water Mark of any water of the U.S., then a CWA section 404 permit (a.k.a. dredge and fill), issued by the U.S. Army Corps of Engineers, may be required. If a 404 permit (or any other federal permit) is required for the project, a state-issued CWA section 401 certification of the permit may be required to ensure that the permitted activities will not result in a violation of Arizona's surface water quality standards. For questions, please contact Bob Scalamera at (602) 771-4502 or by e-mail at rs3@azdeq.gov. The CWA 401 application form can be downloaded from ADEQ's website at: <http://www.azdeq.gov/function/forms/appswater.html#dredge>.

Multi-Sector General Permit (MSGP): ADEQ is developing an MSGP for stormwater discharges associated with industrial activity, based on the U.S. Environmental Protection Agency version, but tailored to the distinct Arizona environment. Airports and other air transportation facilities that have stormwater discharges are required to obtain MSGP coverage as a Sector S industry. All facilities in Arizona (excluding Indian Country lands) must apply for permit coverage when ADEQ issues its new MSGP. ADEQ anticipates that it will begin the public notice for the MSGP during the winter of 2010. For questions on MSGP coverage, please contact Dennis Turner at (602) 771-4501 or by e-mail at dt1@azdeq.gov.

We appreciate the opportunity to review and provide comments. If you need further information, please contact Wendy LeStarge of my staff at (602) 771-4836 or via e-mail at w11@azdeq.gov, or myself at (602) 771-4416 or via e-mail at lc1@azdeq.gov.

Sincerely,



Linda Taunt, Deputy Director
Water Quality Division



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Benjamin H. Grumbles
Director

February 18, 2010

Kory Lewis, Airport Planner
Coffman Associates, Inc.
237 NW Blue Parkway, Suite 100
Lee's Summit, MO 64063

Re: Maricopa County: City of Wickenburg, Arizona – EA for Mid-Field Apron and Access Road Improvements at Wickenburg Municipal Airport

Dear Mr. Lewis:

The Air Quality Division reviewed the proposed project on February 3, 2010, described in your scoping letter of January 25, 2010, regarding the proposed construction of an approximately 30,000 square foot mid-field aircraft parking apron and associated road improvements. Please see our earlier comments, enclosed, dated February 3, 2010.

Should you have further questions, please do not hesitate to call Bonnie Cockrell at (602) 771-2378 or Dave Biddle at (602) 771-2376 of the Planning Section Staff.

Very truly yours,

Diane L. Arnst, Manager
Air Quality Planning Section

Enclosures

cc: Bret Parke, EV Administrative Counsel
David A. Biddle, Environmental Program Specialist
File No. 228612



United States Department of the Interior

U.S. Fish and Wildlife Service

Arizona Ecological Services Field Office

2321 West Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 Fax: (602) 242-2513



In Reply Refer to:

AESO/SE

22410-2010-SL-0283

22410-2010-CPA-0051

March 11, 2010

Mr. Gary Edwards, Town Manager
Town of Wickenburg
155 North Tegner, Suite A
Wickenburg Arizona 85390

RE: Mid Field Apron and Access Road Improvements at Wickenburg Municipal Airport, Located in the Town of Wickenburg, Maricopa County, Arizona

Dear Mr. Edwards:

Thank you for your recent request for information on threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may occur in your project area. The Arizona Ecological Service Field Office has posted lists of the endangered, threatened, proposed, and candidate species occurring in each of Arizona's 15 counties on the Internet. Please refer to the following web page for species information in the county where your project occurs:

<http://www.fws.gov/southwest/es/arizona>

If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find County Species Lists on the main page. Then click on the county of interest. The arrows on the left will guide you through information on species that are listed, proposed, candidates, or have conservation agreements. Here you will find information on the species' status, a physical description, all counties where the species occurs, habitat, elevation, and some general comments. Additional information can be obtained by going back to the main page. On the left side of the screen, click on Document Library, then click on Documents by Species, then click on the name of the species of interest to obtain General Species Information, or other documents that may be available. Click on the "Cactus" icon to view the desired document.

Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Under the General Species Information, citations for the Federal Register (FR) are included for each listed and proposed species. The FR is available at most Federal depository libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Mr. Gary Edwards, Town Manager

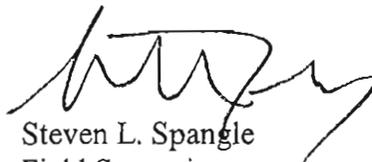
Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency will need to request formal consultation with us. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency will need to enter into a section 7 conference. The county list may also contain candidate or conservation agreement species. Candidate species are those for which there is sufficient information to support a proposal for listing; conservation agreement species are those for which we have entered into an agreement to protect the species and its habitat. Although candidate and conservation agreement species have no legal protection under the Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, we recommend the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona and some of the Native American Tribes protect some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species, or contact the appropriate Native American Tribe to determine if sensitive species are protected by Tribal governments in your project area. We further recommend that you invite the Arizona Game and Fish Department and any Native American Tribes in or near your project area to participate in your informal or formal Section 7 Consultation process.

For additional communications regarding this project, please refer to consultation number 22410-2009-SL-0283. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please feel free to contact Brenda Smith (928) 226-0614 (x101) for projects in Northern Arizona, Debra Bills (602) 242-0210 (x239) for projects in central Arizona and along the Lower Colorado River, and Sherry Barrett (520) 670-6150 (x223) for projects in southern Arizona.

Sincerely,



Steven L. Spangle
Field Supervisor

cc: Josh Avey, Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Kory Lewis, Airport Planner, Coffman Associates Inc., Lees Summit, MO



Appendix D

JURISDICTIONAL WATERS DELINEATION

Appendix D

JURISDICTIONAL WATERS DELINEATION

This appendix includes a jurisdictional waters delineation prepared for the study area. Based on the findings of the delineation, the proposed mid-field apron project will place fill in washes A and A-1 within the project site. This information was forwarded to the U.S. Army Corps of Engineers as part of the Town of Wickenburg's *Clean Water Act*, Section 404, Nationwide Permit (NWP) 39 Pre-Construction Notification for the mid-field apron project submitted in March 2010. The U.S. Army Corps of Engineers responded on June 1, 2010 to verify the NWP application and to propose an in-lieu fee payment of proposed impacts to the jurisdictional washes. The Town of Wickenburg plans to complete the NWP process following completion of this Environmental Assessment. A copy of the U.S. Army Corps of Engineers correspondence is included in this appendix.

This appendix also includes the *Clean Water Act*, Section 401 certification provided by the Arizona Department of Environmental Quality.

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Technical Memorandum

To: Gary Edwards
Town Manager
Town of Wickenburg
155 North Tegner, Suite A
Wickenburg, Arizona 85390

From: Jeremy Doschka, SWCA Environmental Consultants

Date: March 16, 2010

Re: **Preliminary Jurisdictional Delineation for the Wickenburg Municipal Airport
Midfield Apron Project in Maricopa County, Arizona / USACE File No.
SPL-2010-00110-AP; SWCA Project No. 15840**

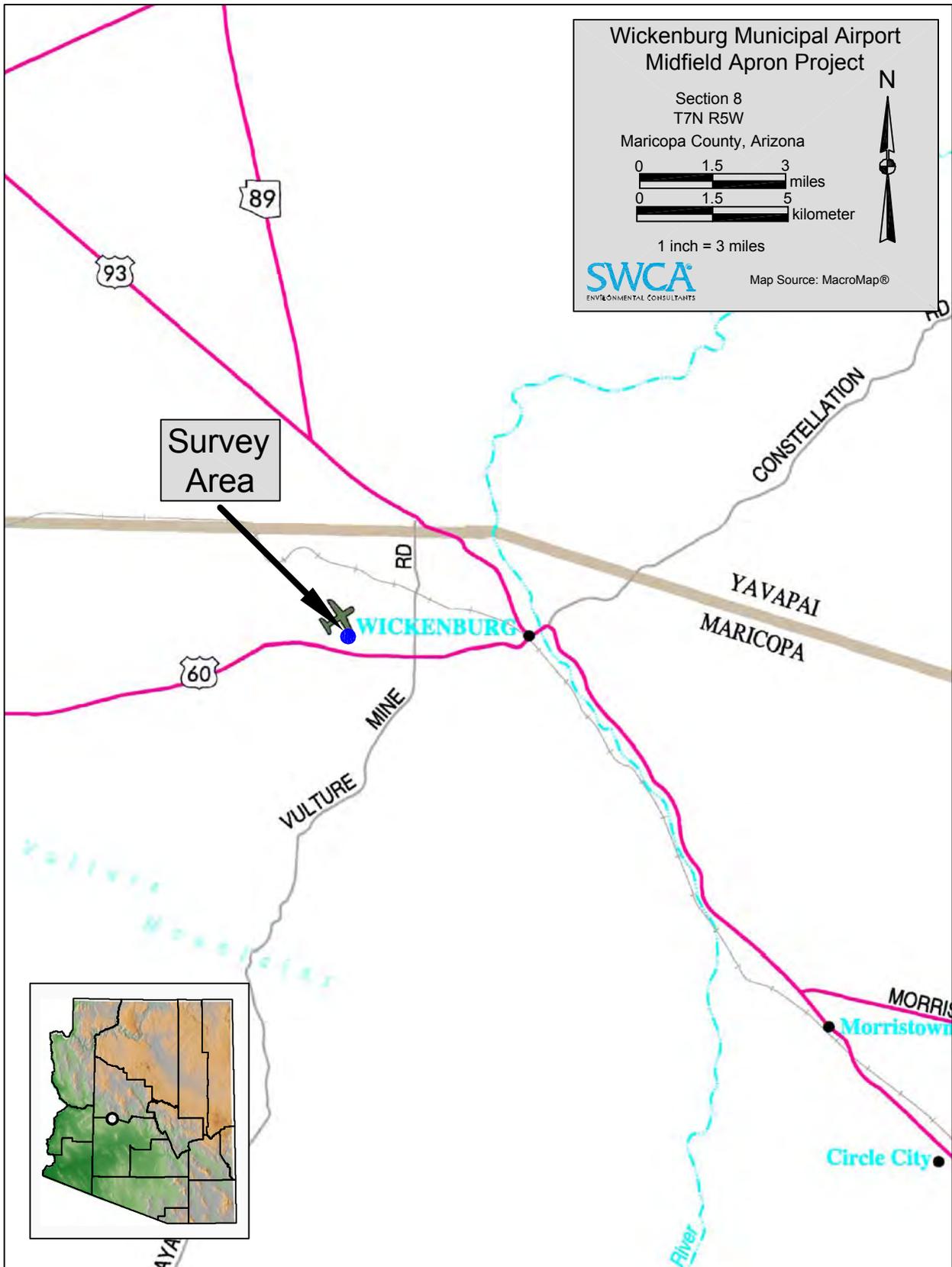
INTRODUCTION

SWCA Environmental Consultants (SWCA) was contracted by Coffman Associates to conduct a preliminary jurisdictional delineation (JD) of potentially jurisdictional waters of the United States¹ (WUS) for the Wickenburg Municipal Airport Midfield Apron project in Maricopa County, Arizona (Figure 1). The project includes the construction of an approximately 341,070-square-foot midfield aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport. The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road located on the south side of the airport. The airport apron and access road will be located on airport property and are needed to replace transient and based aircraft parking areas lost as a result of hangar development to the west of the project site. The survey area is located approximately 4 miles west of the town of Wickenburg on the north side of U.S. Highway 60 within the NW ¼ of Section 8, Township 7 North, Range 5 West, Gila and Salt River Baseline and Meridian, Maricopa County (Figure 2). The center point of the survey area is latitude 33.9681°N, longitude -112.7960°W. This survey area was previously delineated within a larger area under U.S. Army Corps of Engineers (USACE) project number 1999-15558-EHB.

Pursuant to USACE Regulatory Guidance Letter (RGL) 08-02,² an applicant can request a “preliminary jurisdictional delineation” in lieu of an approved “Rapanos” jurisdictional delineation. The purpose of this JD is twofold: 1) to determine whether there are any natural or human-made drainages crossing the proposed survey area that meet the definition of WUS (according to regulation at 33 Code of Federal Regulations [CFR] Part 328.3) and are subject to federal regulation under Section 404 of the Clean Water Act (CWA) (33 United States Code §1344); and 2) if WUS are present, to delineate the limits of federal jurisdiction as outlined in 33 CFR Part 328.4–5.

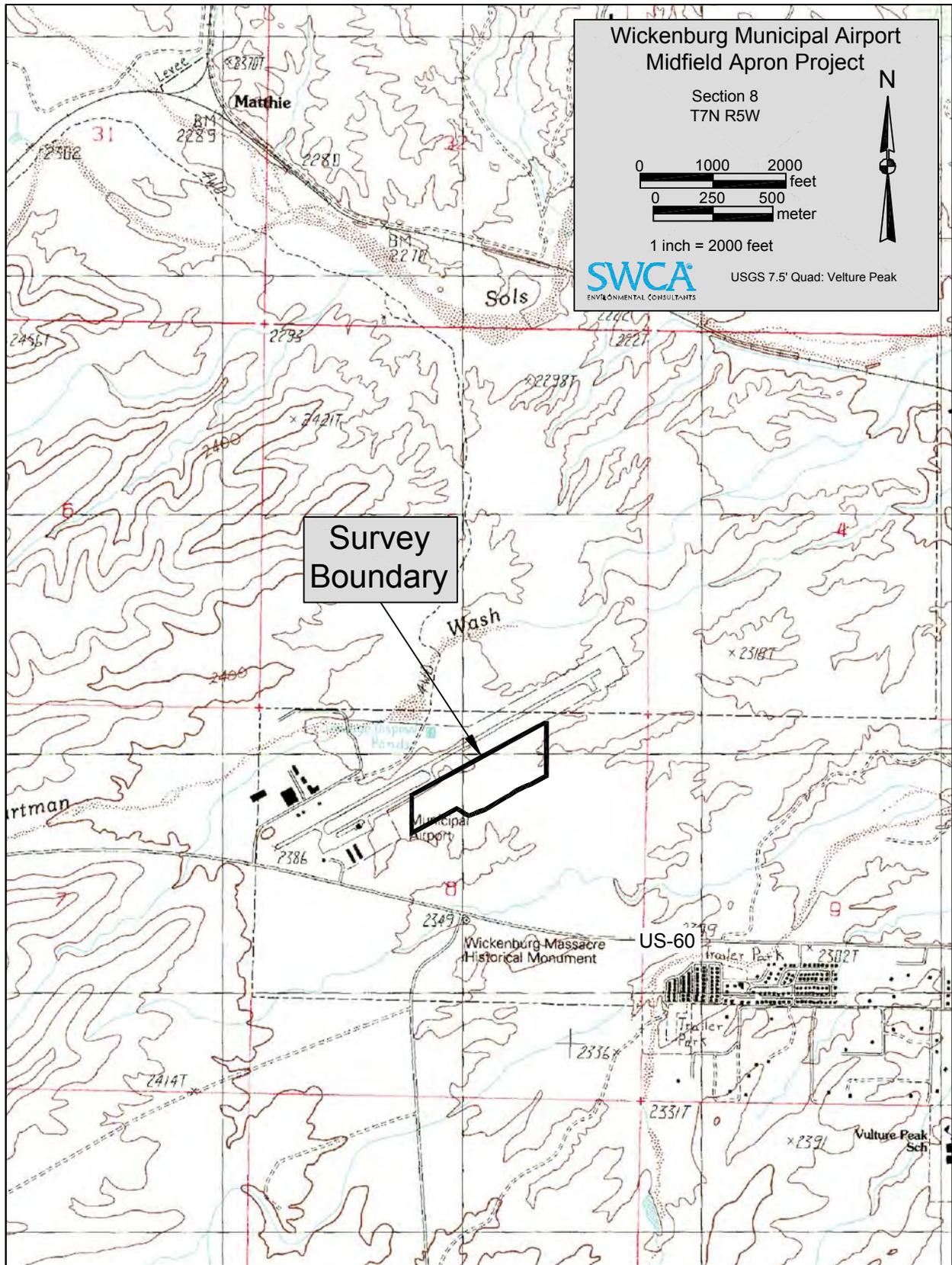
¹ This JD is considered preliminary, pending final review and approval by the USACE.

² U.S. Army Corps of Engineers. 2008. Regulatory Guidance Letter No. 08-02. June 26.



15840

Figure 1. General location of the project area.



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Figure 2. Project area location.

SWCA will act as the agent and as the point of contact for the USACE on behalf of the project proponent for any necessary CWA Section 404 permitting. Property owners have provided proof of ownership documentation and a letter that designates SWCA as the Town of Wickenburg's agent and authorizes the USACE and any other federal employee access to the property for field verification of the JD and 404 process (Appendix A).

METHODS

SWCA personnel reviewed recent aerial photography of the survey area and vicinity prior to conducting the site visit. On August 19, 2009, a field reconnaissance was conducted to identify and map, if present, the location of the ordinary high-water mark (OHWM) limits of potential WUS within the boundaries of the survey area. Federal regulations define the OHWM as "...the line on the shore established by the fluctuations of water and indicated by the presence of characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, and/or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3[e]). Additional physical characteristics that the USACE may consider indicators of the OHWM are listed in Guidance developed by the USACE.³

During the field reconnaissance, the width of OHWM limits was measured at various locations along each drainage feature in the survey area. For each data point sampled during the field reconnaissance, the width and channel characteristics were recorded on an aerial photograph at a scale of 1 inch = 100 feet and ground-level photographs were taken to document the condition of the drainage. Field data were later superimposed onto the electronic aerial photograph using AutoCAD software, which is presented as Figure 3. Representative ground-level color photographs are provided in Appendix B, and field data sheets are attached in Appendix C.

RESULTS

Project Area Description

The survey area is located in the Arizona Upland subdivision of the Sonoran Desertscrub biotic community, as described in Brown,⁴ at approximately 2,350 feet above mean sea level. Two unnamed ephemeral washes occur in the survey area. These washes flow east from the survey area into Sols Wash, which then flows into the Hassayampa River. Dominant vegetation along the ephemeral washes in the survey area includes velvet mesquite (*Prosopis velutina*), catclaw acacia (*Acacia greggii*), and native grasses. Vegetation in the surrounding uplands is dominated by creosote bush (*Larrea tridentata*) and velvet mesquite. No aquatic habitats (e.g., springs, stock tanks, etc.) or broadleaf deciduous riparian vegetation communities occur in the survey area.

Waters of the United States

Based on the results of the fieldwork and computer analysis, two ephemeral drainage features (Washes A and A1) were identified in the survey area (see Figure 3). These two drainages total 0.64 acre (Table 1). Two additional non-jurisdictional features (culverts) were also identified in the survey area. Data Point 4 is located at an overview of a swale feature adjacent to a culvert, and Data Point 5 is the south end of a culvert that drains into Wash A. The culvert apparently drains the infield of the airport runway. Data

³ U.S. Army Corps of Engineers. 2005. Regulatory Guidance Letter No. 05-02. Dated June 14.

⁴ Brown, D.E. (ed.). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.

sample point locations on the JD aerial photograph figure are indicated by a blue arrow, which also indicates the direction of ground-level photographs. A copy of the data is provided in Appendix D (RGL 08-02 preliminary jurisdictional determination form).

Table 1. Field Data and Preliminary Estimates of WUS in the Wickenburg Municipal Airport Survey Area

Data Point/ Wash ID	Photo Nos.	Latitude	Longitude	Length (feet)	Area (square feet)	Area (acre)	Field Indicators*	Jurisdictional	
								Yes	No
1-3, 6-9 (Wash A)	1-4, 8- 11	33.9681	-112.7960	2,430	27,069	0.60	1, 2, 4	x	
4	5	33.9675	-112.7991	300	NA	NA	SW		x
5	6	33.9673	-112.7978	NA	NA	NA	Culvert		x
10 (Wash A1)	12	33.9694	-112.7947	452	1,581	0.04	1, 2	x	
Total				3,182	28,650	0.64			

* 1 = sandy channel bottom, 2 = change in substrate, 3 = cut bank, 4 = shelving, 5 = braided wash, 6 = debris, 7 = change in vegetation, 8 = water stains, 9 = sheet flow, 10 = scour, SW = swale or small wash.

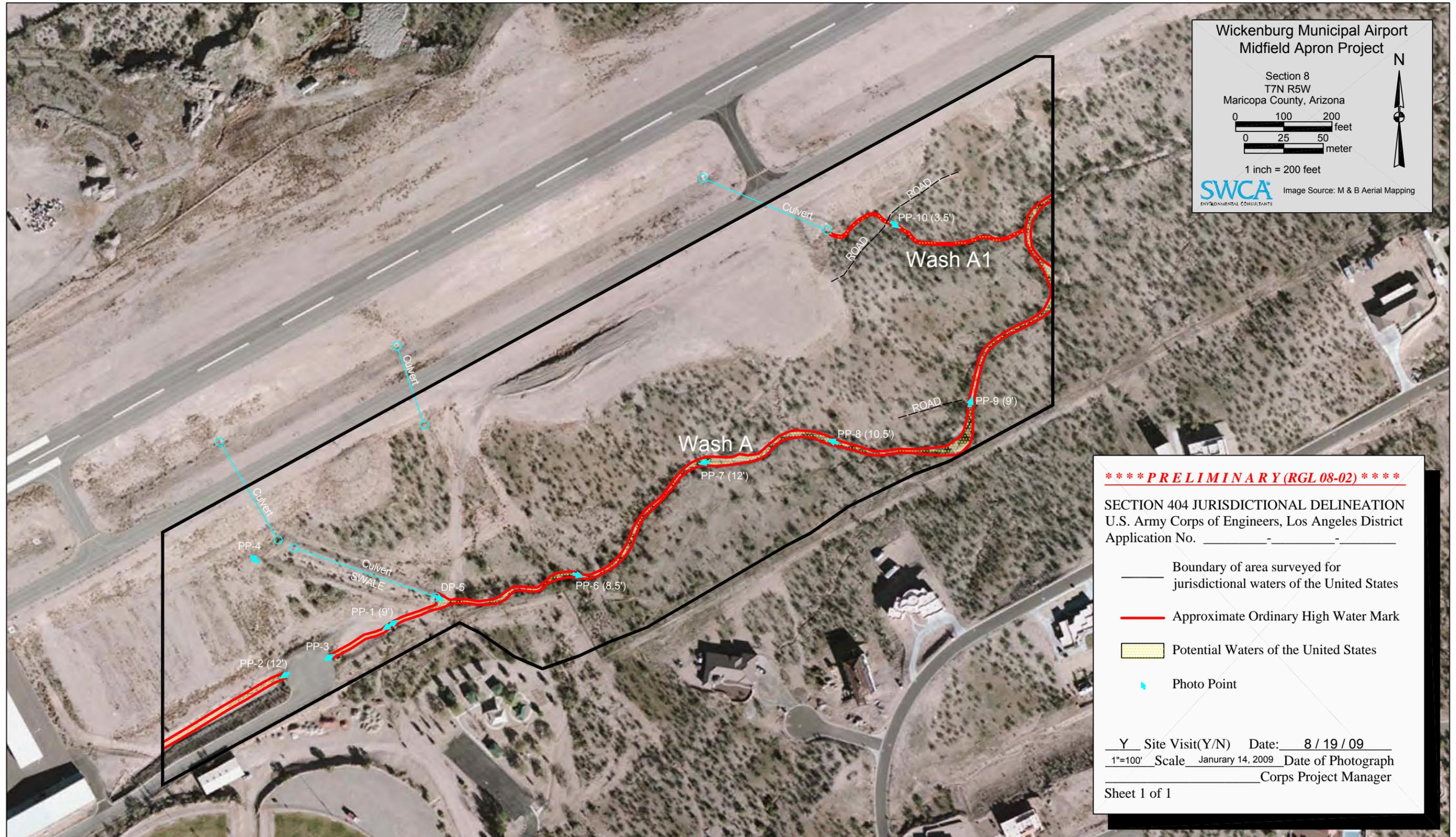


Figure 3. Jurisdictional delineation of WUS.

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APPENDIX A

Proof of Ownership Documentation and Agent Authorization and Property Access Letter



TOWN OF WICKENBURG

155 N. Tegner, Ste. A, Wickenburg, Arizona 85390 (928) 684-5451
Phoenix Line (602) 506-1622 FAX (602) 506-1580

February 16, 2010

Ms. Sallie McGuire
U.S. Army Corps of Engineers, Regulatory Section
3636 North Central Avenue, Suite 970
Phoenix, Arizona 85012

**RE: Agent Designation and Proof of Ownership for the Wickenburg Municipal
Airport Expansion Project, Maricopa County, Arizona**

Dear Ms. McGuire:

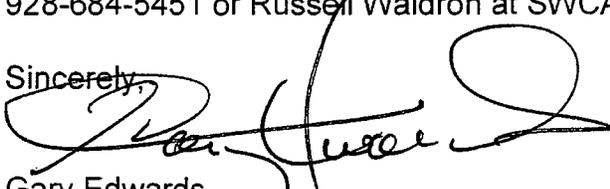
The purpose of this letter is to provide you with proof of ownership documentation and inform you that the Town of Wickenburg designates SWCA Environmental Consultants (SWCA) to act as our Agent and the U.S. Army Corps of Engineers point of contact for any necessary Clean Water Act Section 404 permitting activities associated with development of the above-referenced Property. This Property is located in all or portions of Section 8, Township 7 North, Range 5 West, Gila and Salt River Baseline and Meridian, Maricopa County, Arizona.

SWCA Environmental Consultants
Attn: Russell Waldron
343 West Franklin Street
Tucson, Arizona 85701
(520) 325-9194

Proof of parcel ownership indicating the Town of Wickenburg is the owner of the Property and that I am the designated manager for the owners is attached.

Should you need any additional information, please do not hesitate to contact me at 928-684-5451 or Russell Waldron at SWCA.

Sincerely,


Gary Edwards
Town Manager

Attachment: Proof of Parcel Ownership

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BLM
Airport
Lease

Land Office

Phoenix, Arizona

Serial Number

A 2670

PUBLIC AIRPORT LEASE

This indenture of lease, entered into this 14th day of October, 1968, by and between the UNITED STATES OF AMERICA, hereinafter called the lessor, acting in this behalf by the

and

Town of Wickenburg

hereinafter called the lessee, under, pursuant, and subject to the terms and conditions of the Act of May 24, 1928 (45 Stat. 728; 49 U.S.C. 211-214), as amended, and the regulations thereunder (43 CFR 2235.1 *et seq.*):

WITNESSETH:

Sec. 1. That the lessor, in consideration of rents to be paid and the covenants to be observed, as herein set forth, does hereby grant and lease to the lessee the exclusive right and privilege of maintaining an airport on the following-described land, to-wit:

See attachment A.

containing approximately **28.45** acres, together with the right to construct and maintain thereon all buildings or other improvements necessary as an airport for the accommodation of the public for a period of 20 years and, if at the end of said period, the lessor shall determine that a new lease should be granted, the lessee herein will be accorded a preference right thereto upon such terms and for such duration as may be fixed by the lessor.

Sec. 2. For and in consideration of the foregoing, the lessee hereby agrees:

(a) To establish a public airport on said tract and to maintain such airport during the life of this lease.

(b) To pay the lessor each year in advance the annual rental required under Sec. 3(a) of this lease.

(c) To complete the construction facilities for service, fuel, and other supplies necessary to make the land available for public use as an airport within six months from the execution of this lease.

(d) At all times to keep the airport equipped and maintained in accordance with the requirements made by the Federal Aviation Agency.

(e) That all departments and agencies of the United States operating aircraft shall have free and unrestricted use of the airport. With the approval of the lessor, any department or agency shall have the right to erect and install thereon such structures and improvements as are deemed advisable, including facilities for maintaining supplies of fuel, oil, and other materials for operating aircraft.

(f) That whenever the President may deem it necessary for military purposes, the Secretary of Defense may assume full control of the airport.

(g) Not to allow the use of the premises included in this lease for unlawful purposes or for any purpose not in harmony with the proper use as an airport.

(h) That authorized representatives of the lessor or the Federal Aviation Agency shall at any time have the right to enter the leased premises for the purpose of inspection and shall have free access to the books containing records of operations under authority of this lease.

(i) Not to assign or sublet this lease without the consent of the lessor, and to submit for consideration all assignments made, subject to his approval.

(j) To submit to the Federal Aviation Agency, for its approval, regulations to govern the use of an airport.

(k) *Equal Opportunity clause.* During the performance of this contract, the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the lessee's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The lessee will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the

Doc No. 06-00179.1

Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the lessee's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The lessee will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however,* That in the event the lessee becomes involved in or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the lessee may request the United States to enter into such litigation to protect the interests of the United States.

Sec. 3. It is understood and agreed:

(a) That the rental charge for the first three years shall be \$10.00 dollars per annum, that the charge shall be subject to consideration and revision at three-year intervals; that the lessee shall

submit a report to the lessor showing the facts as to the gross receipts within 90 days after each anniversary date of the lease; that in the event the average annual gross receipts exceed \$5,000, the rentals for the succeeding interval or intervals may be increased to such reasonable amount as may be fixed by the lessor but not exceeding one percent of such average, and that due consideration will be given in fixing the rentals to all pertinent facts and circumstances, including other holdings of the lessee, if any, in connection with which the receipts are obtained.

(b) That rates and prices for accommodation and service may be fixed by the lessor, whenever it is deemed necessary.

(c) That if the lessee shall fail to: (1) use the premises or any part thereof, for a purpose inconsistent with the use contemplated herein; (2) pay the annual rental or any part thereof; (3) comply with the provisions of this lease; or, (4) maintain the premises in accordance with the requirements of the Federal Aviation Agency, the lessor, in its discretion, may terminate and cancel this lease.

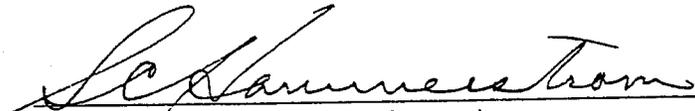
(d) That upon the termination of this lease, by expiration or forfeiture, or whenever the United States may claim the right of possession as herein provided, the lessee agrees to surrender to it possession of the premises and to comply with such provisions and conditions respecting the removal of improvements and equipment on the property as may be made by the lessor.

Sec. 4. It is further agreed that no Member of, or Delegate to, Congress, or Resident Commissioner, after his election or appointment, and either before or after he has qualified, and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, shall be admitted to any share or part of this lease, or derive any benefit that may arise therefrom, and the provisions of Title 18, U.S.C. Secs. 431-433, relating to contracts, enter into and form a part of this lease, so far as the same may be applicable.

For Secs. 5, 6, 7 and 8, see attachment B.

IN WITNESS WHEREOF

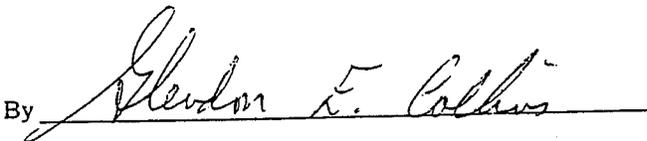
THE UNITED STATES OF AMERICA


(Signature of Lessee)

S. C. Hammerstrom, Mayor

WITNESSES TO SIGNATURE OF LESSEE

By



Manager, Land Office

[SEAL]

NOTE: If this lease is executed by a corporation, it must bear the corporate seal

GPO 858-952

146310

OL-DEED

Land of Maricopa

BOOK 7737 PAGE 753

STATE OF ARIZONA }
County of MARICOPA } ss.

I hereby certify that the within instrument was filed and recorded _____, 19____, at _____ M.

Fee No.:

Indexed:

Compared:

Photostated: 00

Fee: \$ 1.00

I. R. S.:

In Docket No. 7737, Page 753, at the request of Town of Wickenburg

1969 AUG 13 11 08

When recorded mail to:

Albert Kirley, Town Mgr
Town of Wickenburg
Wickenburg, Arizona

Witness my hand and official seal.

PAUL N. MARSTON

County Recorder

By

Paul N. Marston

Deputy Recorder

Warranty Deed

For the consideration of Ten Dollars, and other valuable considerations, I or we,

George F. Jellik and Viola F. Jellik, husband and wife

do hereby convey to

Town of Wickenburg, a Municipal Corporation

the following described property situated in Maricopa County, Arizona:

A parcel of land in Section 6, T7N, R5E, S1E, more fully described as follows:

COMMENCING POINT at the NE Corner of Section 6; thence N89°54'43"W, along the north line of Section 6, a distance of 1212.08 feet, thence S60°24'40"W, a distance of 2766.14 feet; thence S29°35'20"E, a distance of 450.00 feet; thence S60°24'40"W, a distance of 800.00 feet; thence S12°15'40"W, a distance of 145.76 feet to the north right-of-way line of U.S. Highway 60-70 as shown on Arizona State Highway Department Project No. 798(12) thence N77°44'20"W, along said right-of-way line a distance of 100.00 feet to the Point of Beginning; thence S12°15'40"W, 200.00 feet; thence N58°45'31"W, 536.09 feet; thence S54°42'02"W, 509.28 feet to a point in said Highway right-of-way line; thence Southeasterly along a curve to the right in said right-of-way line, an arc distance of 211.10 feet (said curve having a radius of 11,359.16 feet); thence S77°44'20"W, a distance of 639.65 feet to the N.E. Corner of Section 6, containing 4.31 Acres.

And I or we do warrant the title against all persons whomsoever, subject to the matters above set forth.

Dated this 23rd day of June, 1969.

George F. Jellik
Viola F. Jellik

STATE OF Arizona }
County of Maricopa } ss.

This instrument was acknowledged before me this 23rd day of June, 1969, by

George F. Jellik and Viola F. Jellik, husband and wife

Arthur Jaffer

Notary Public.

My commission will expire My Commission Expires February 14, 1971

STATE OF _____ }
County of _____ } ss.

This instrument was acknowledged before me this _____ day of _____, 19____, by

Notary Public.

My commission will expire

APPENDIX B
Representative Ground-Level Photos



Photograph 1. Wash A at Data Point 1; view facing downstream.



Photograph 2. Wash A at Data Point 1; view facing upstream.



Photograph 3. Wash A at Data Point 2; view facing upstream.



Photograph 4. Wash A at Data Point 3; view facing downstream.



Photograph 5. Non-jurisdictional swale at Data Point 4; view facing downstream.



Photograph 6. South end of culvert at Data Point 5; view facing downstream into Wash A.



Photograph 7. Wash A at Data Point 6; view facing downstream.



Photograph 8. Wash A at Data Point 7; view facing upstream.



Photograph 9. Wash A at Data Point 8; view facing upstream.



Photograph 10. Wash A at Data Point 9; view facing downstream.



Photograph 11. Wash A1 at Data Point 10; view facing downstream.

APPENDIX C
Field Data Sheets

Jurisdictional Waters Delineation at: Wickenburg Municipal Airport Expansion

Date: 8/19/09 Field Workers: R. Waldron

Page 1 of 2

Data Point ID	Width (ft)	Field Indicators of OHWM ¹				Photo Reference ² and Notes
1	9	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photos 1 upstream (US) and 2 downstream (DS)
		<input checked="" type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
2	12	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 3 – US
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
3	12	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 4 – DS
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
4	-	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input checked="" type="checkbox"/>	Swale (shallow depression)	Photos 5 (culverts) and 6 – DS (swale)
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
5	-	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 7 – DS end of culvert looking into Wash A
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input checked="" type="checkbox"/>	Other (describe)	
6	8.5	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 8 – DS
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
7	12	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 9 – US
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
8	10.5	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 10 – US
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input checked="" type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	
9	9	<input type="checkbox"/>	Cut Bank (>1 ft. high)	<input type="checkbox"/>	Swale (shallow depression)	Photo 11 – DS
		<input type="checkbox"/>	Shelving	<input type="checkbox"/>	Water stains	
		<input type="checkbox"/>	Braided wash	<input type="checkbox"/>	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	<input type="checkbox"/>	Debris (piles of vegetative matter)	
		<input checked="" type="checkbox"/>	Substrate change	<input type="checkbox"/>	Other (describe)	

¹ U.S. Army Corps of Engineers: Regulatory Guidance Letter No. 05-02. June 14, 2005

² Field photographs are available on file at SWCA

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): February 2010

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
Steve McKay
Town of Wickenburg
155 North Tegner, Suite A
Wickenburg, Arizona 85390
(928) 684-5451

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: See attached preliminary jurisdictional delineation report.
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: AZ County/parish/borough: Maricopa City: Wickenburg
Center coordinates of site (lat/long in degree decimal format):
Lat. 33.9681 Long. -112.7960.
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Hartman Wash

Identify (estimate) amount of waters in the review area:
Non-wetland waters: total linear feet: 3,182 and/or 0.64acres. 2 additional non-jurisdictional features – 300 linear feet.
Cowardin Class: Riverine
Stream Flow: Ephemeral
Wetlands: N/A.
Cowardin Class: N/A

Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal: N/A
Non-Tidal: N/A

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date:
 Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: SWCA Environmental Consultants.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000- , AZ. Vulture Peak, AZ
- USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date)
or Other (Name & Date):
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining the
signature is impracticable)

Eleanor Gladding

From: Palaruan, Cynthia A SPL [Cynthia.A.Palaruan@usace.army.mil]
Sent: Tuesday, June 01, 2010 12:12 PM
To: Eleanor Gladding; Russell Waldron
Subject: Wickenburg Municipal Airport Midfield Apron Project (Corps file# SPL-2010-00110-AP)

Hello Eleanor and Russell,

Reference your Clean Water Act Section 404 permit application for this project, I received confirmation from The Nature Conservancy (TNC) that they still have credits available regarding your client's proposed in lieu fee (ILF) payment at TNC's Hassayampa River Preserve ILF Mitigation Project. The ILF cost per mitigated acre is \$14,452. Therefore, based on your proposed impacts in a water of the U.S. (0.31 acres), for a 1:1 mitigation ratio, your client's proposed ILF payment would be \$4,480.12. Based on this, please reply to this email confirming your concurrence. If you concur, I'll proceed with a NWP39 Corps verification letter to include development of the special condition (SC) addressing the permittee's ILF payment. The SC would include ILF payment instructions and explain that the compensatory mitigation ILF payment shall be made by the permittee no later than 30 days from issuance of the 404 permit. Please contact me, if you have questions.

Thanks for your help!

Ann Palaruan, Project Manager
U.S. Army Corps of Engineers
Regulatory Division, Arizona Branch
cynthia.a.palaruan@usace.army.mil
(602) 640-5385 ext. 227

Please assist us in better serving you!

You are invited to complete our customer survey, located at the following link: <http://per2nwp.usace.army.mil/survey.html>
<<http://per2nwp.usace.army.mil/survey.html>>

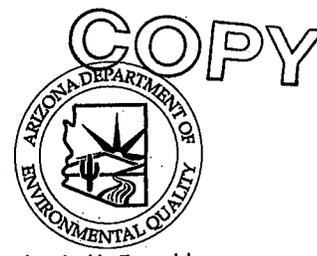
Note: If the link is not active, please copy and paste it into your internet browser. Thank you!



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Benjamin H. Grumbles
Director

May 11, 2010

401 cert reading file: rs310:025

Applicant: Town of Wickenburg
Gary Edwards, Town Manager
155 N. Tenger; Suite A
Wickenburg, Arizona 85390

Subject: CWA 401 Water Quality Certification for the proposed
Wickenburg Municipal Airport - Midfield Apron Project impacting
unnamed ephemeral washes tributary to Sols Wash, Middle Gila Watershed
Latitude: 33° 58' 05.16"; Longitude: 112° 47' 45.6",
Wickenburg, Maricopa County, Arizona.

U.S. Army Corps of Engineers (Los Angeles District) File No.: **SPL-2010-00110-AP**
ADEQ LTF No.: **52486**; ADEQ WQdB No.: **53183**

Dear Mr. Edwards:

The Arizona Department of Environmental Quality (ADEQ), has reviewed your application for water quality certification, pursuant to Section 401 of the Clean Water Act (CWA), for the Section 404 Nationwide Permit (NWP) number 39 for the subject project.

After examination of the information included with the application, ADEQ has determined that if the applicant adheres to the information submitted and the conditions of this certification, the proposed activities are not expected to have a negative impact to the chemical, physical or biological integrity of the subject waterbodies.

This letter serves as the water quality certification and contains three parts: Section I describes the activities being certified; Section II lists the references used as the basis for certification; and Section III lists the State 401 Water Quality Certification Conditions.

I) Description Of Activities To Be Certified

Purpose or type of project: improve airport facilities by providing aircraft parking areas in replacement of area lost to new hangars.

Project activities impact 0.31 acres out of the 0.64 acres of jurisdictional waters inside the boundaries of the 27.7 acre project. Impacts are due to channel modifications, construction of stream crossings (culverts) and pad fill.

For the purposes of this certification:

- Waters of the U.S./WUS refers to the stream channel between the Ordinary High Water Marks (OHWM) of that channel.

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ
86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ
85701
(520) 628-6733

- Temporary means not longer than the period of this certification.
- For purposes of this certification, native material/fill is defined as pollutant-free soil, sand, gravel, etc. that makes up the streambed or adjacent banks in the immediate area of the permitted work.

II) Basis For Conditional State 401 Water Quality Certification

- A) State of Arizona Water Quality Standards for Surface Waters (WQS), Arizona Administrative Code (A.A.C.) Title 18, Chapter 11, Article 1. Designated uses for the impacted waterbodies are: Aquatic and Wildlife ephemeral (A&We) and Partial Body Contact (PBC) (A.A.C. R18-11-105).
- B) ADEQ Water Quality Division Application for Clean Water Act Section 401 Certification package dated 4/20/10, and received by the ADEQ Surface Water Section on 4/22/10 via Russell Waldron (SWCA).

Information used in reviewing the application also includes the following:

- Clean Water Act Section 404 Preconstruction Notification
- Descriptions, maps and design drawings submitted by the applicant.

III) Conditions For State 401 Water Quality Certification

This State Water Quality Certification is issued by the ADEQ under the authority of Section 401(a) of the federal CWA (33 U.S.C. §1251 et seq.) and A.R.S. 49-202. The conditions listed below are in addition to CoE conditions in CWA 404 NWP 39 issued (06/01/07) by the CoE. These conditions are enforceable by CoE. Civil penalties up to a maximum of \$25,000 per day of violation may be levied if these certification conditions are violated. Criminal penalties may also be levied if a person knowingly violates any provision of the CWA.

A) General Conditions

This certification is only for the activities described in Section I and is based upon the documents submitted and listed in Section II of this certification for the subject project and is valid for no longer than twelve (12) months following the date the NWP is modified, reissued or revoked. All of the existing NWPs are scheduled to be modified, reissued or revoked in March 2012. It is incumbent upon the applicant to remain informed of changes to the NWPs.

If substantive changes are made in the proposed project the applicant shall immediately notify ADEQ in writing. ADEQ will have the option of modifying or denying this Certification.

For any correspondence regarding this project, the ADEQ mailing address is:

Arizona Department of Environmental Quality
Robert Scalamera
Surface Water Section / 401 Certifications / mailstop 5415A-1
1110 West Washington Street
Phoenix, Arizona 85007

For questions or general comments:

email: rs3@azdeq.gov
Voice: (602) 771-4502

In any correspondence, reference:

Wickenburg Municipal Airport - Midfield Apron Project Project
CoE File No.: **SPL-2010-00110-AP**
ADEQ LTF No.: **52486** ADEQ WQdB No.: **53183**
401 cert reading file: **rs310:025**

- 1) The applicant shall provide a copy of these State 401 Water Quality Certification Conditions to all appropriate contractors and subcontractors. The applicant shall also post and maintain a legible copy of this certification letter in a weather-resistant location at the construction site where it may be seen by the workers.
 - 2) The applicant shall notify ADEQ of completion within 30 days after project completion.
 - 3) The applicant is responsible for all activities certified herein and any adverse impacts to any water of the U.S. (WUS) that such may cause.
- B) Necessary Permits
- 1) The applicant is responsible for obtaining all other permits, certifications and licenses that may be required by federal, state or local authorities.
 - 2) Activities which may require other approvals include, but are not limited to:
 - a) Construction activities disturbing greater than one acre of land outside the area subject to section 404 will require an AZPDES Stormwater Construction General Permit. Prior to the commencement of activities herein certified, the applicant will have available for inspection onsite a copy of the Notice of Intent (NOI) and associated ADEQ authorization letter, and a Stormwater Pollution Prevention Plan as required by the applicable stormwater regulations.
 - b) If reclaimed wastewater is used for irrigation or dust control, a Reclaimed Water Permit will be required and an AZPDES Permit may be required if used in a WUS. In any case, water used for dust suppression or irrigation shall not contain contaminants that could cause an exceedence of WQS.

- c) If dewatering operations are needed, this water shall not be discharged into a WUS without proper permits, including, but not necessarily limited to an AZPDES Permit.

C) Specific Conditions

General

- 1) Any discharge occurring as a result of activities certified for the subject project shall not cause an exceedence of WQS. Applicability of this condition is as defined in A.A.C. R18-11-102.
- 2) This certification does not authorize the discharge of wastewater, process residues or other waste to any WUS.
- 3) Runoff and seepage from activities certified herein shall not cause an exceedence of Arizona WQS for any WUS.
- 4) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, activities herein certified shall be performed during periods of no flow in any watercourse or other WUS. No work shall be done, nor shall any equipment or vehicles enter any WUS while flow is present, unless all conditions herein are met.
- 5) The effectiveness of all control measures shall be reevaluated after each flow event and repaired/modified as needed.

Erosion and Sedimentation Prevention

- 6) Applicant must minimize clearing, grubbing, scraping or otherwise limit exposure of erodible surface to the minimum necessary for each construction phase or location.
- 7) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, if activities certified herein are likely to create an erosion or sedimentation problem, operations shall cease until the problem is resolved or until control measures have been undertaken.
- 8) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, erosion control, sediment control and/or bank protection measures shall be installed before construction and pre-operation activities, and shall be maintained during construction and post-construction periods to minimize channel or bank erosion, soil loss and sedimentation. **Control measures shall not be constructed of uncemented or unconfined imported soil, or other materials easily transported by flow.**
- 9) The applicant is responsible for ensuring construction material and/or fill (other than native fill or that necessary to support revegetation) placed within the OHWM of any WUS, shall not include materials that can cause or contribute to pollution of a surface water. Examples of prohibited fill include pollutant-contaminated soil and materials defined as pollutants or hazardous in A.R.S. §

49-201. Fill used to support vegetation rooting or growth shall be protected from erosion.

Any fill material washing must occur outside of the OHWM of any WUS prior to placement and the rinseate from such washing shall be contained and treated, or otherwise prevented from contributing sediment or causing erosion to any WUS.

Other than replacement of native fill or material used to support vegetation rooting or growth, fill placed in locations subject to scour must resist washout whether such resistance is derived via particle size limits, presence of a binder, vegetation, or other armoring.

- 10) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, upon completion of construction the applicant shall ensure no adverse change due to the subject project has occurred in the stability (with respect to stream hydraulics, erosion and sedimentation) of any WUS including upstream and downstream from the project. If such change has occurred, the applicant shall take steps to restore the pre-project stability of any impacted segments.
- 11) If retention/detention basins are included in or added to the project, applicant will complete the grading necessary to direct runoff towards retention/detention basins no later than immediately following initial land clearing or rough grading.

Retention/detention basins shall be sized to accept storm runoff and capture sediment prior to it entering any WUS. Detention basins will provide detention through the use of controlled outflow spillways and shall cause no significant change to the hydraulic conditions of the upstream or downstream WUS outside of the project boundaries.

The basins shall be maintained; e.g., have sediment removed, as required to maintain their function.

- 12) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, when flow is present in any WUS within the project area, the applicant and any contractor will not alter the flow by any means except to prevent erosion or pollution of any WUS.
- 13) Silt laden or turbid water resulting from activities certified herein shall be settled, filtered or otherwise treated to ensure no violation of Arizona WQS in any WUS.
- 14) When flow (including sheet flow or other surface runoff) in any WUS in the work area is sufficient to erode, carry or deposit material, activities certified herein shall cease until:
 - the flow decreases below the point where sediment movement ceases, or
 - until control measures (e.g., equipment and materials easily transported by flow are protected with non-erodible barriers or moved outside the flow area) have been undertaken.

Pollution Prevention

- 15) Work shall be conducted and monitored to ensure that pollution from the activities certified herein including, but not limited to: earthwork, concrete mixing and placement and equipment maintenance and washing does not cause an exceedence of Arizona WQS in any WUS.
- 16) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, the applicant will erect any barriers, covers, shields and other protective devices as necessary to prevent any construction materials, equipment or contaminants/pollutants from falling, being thrown or otherwise entering any flowing WUS.
- 17) Upon completion of the activities certified herein (except as noted in condition 22 -concrete curing), areas within the OHWM of all WUS at the project site shall be promptly cleared of all forms, piling, construction residues, equipment, debris or other obstructions. Any debris including, but not limited to: soil, silt, sand, rubbish, cement, bituminous material, oil or petroleum products, organic materials, tires or batteries, derived from the activities certified herein shall not be stored at any site where it may be washed into a WUS and shall be properly disposed of after completion of the work.
- 18) The applicant must designate area(s) for equipment staging and storage located entirely outside of the OHWM of any WUS. Any equipment maintenance, washing or fueling that cannot be done offsite will be done in the designated area. The spill containment plan (condition 19) shall include this(these) area(s). Material specifically manufactured and sold as spill containment and adsorbent/absorbent will be on hand to control small spills. All equipment shall be inspected for leaks prior to use within the OHWM of any WUS. All leaks shall be repaired and all equipment will be cleaned (using steam or a pressure washer) to remove any fuel or other fluid residue prior to use in any WUS.
- 19) The applicant shall have a spill containment plan onsite to ensure that pollutants are prevented from entering any WUS. In addition, the applicant must designate areas, located entirely outside of the OHWM of any WUS, for chemical and petroleum storage, and solid waste containment. All materials stored onsite will be stored in appropriate containers or packaging. Any pollutant produced by activities certified herein shall be properly disposed of in accordance with applicable regulations. A spill response kit will be maintained in this (these) area(s) to mitigate any spills. The kit will include material specifically manufactured and sold as spill adsorbent/absorbent and spill containment. The applicant will ensure that whenever there is activity on the site, that there are personnel on site trained in the proper response to spills and the use of spill response equipment.

- 20) Except as specified in the application and allowed, specified or not prohibited in the 404 permit and this certification, permanent and temporary pipes and culverted crossings shall be adequately sized to handle expected flow and properly set with end section, splash pads, or headwalls that dissipate water energy to control erosion.

Temporary structures constructed of imported materials and all permanent structures, including but not limited to, access roadways, culverted and unculverted crossings, staging areas, material stockpiles, berms, dikes and pads shall be constructed so as to accommodate the overtopping of the fill by streamflow and fill must resist washout whether such resistance is derived via particle size limits, presence of a binder, vegetation, or other armoring. Temporary structures constructed of imported materials are to be removed no later than upon completion of the permitted activity.

Temporary structures constructed of native materials, if they provide an obstacle to flow or can contribute to or cause sedimentation or erosion, are to be removed no later than upon completion of the permitted activity.

- 21) Acceptable construction materials that will or may contact water in any WUS are: crushed stone, native fill (meeting the requirements in condition 9), concrete (including soil cement and unmodified grouts), steel (including galvanized), plastic, or aluminum and other materials specifically approved in writing by ADEQ.
- 22) If fully, partially or occasionally submerged structures are constructed of cast-in-place concrete instead of pre-cast concrete, applicant will take steps; e.g., sheet piling or temporary dams (imported-material-filled cofferdams are not allowed), to prevent contact between water (instream and runoff) and the concrete until it cures and until any curing agents have evaporated or otherwise cease to be available; i.e., are no longer a pollutant threat.

Vegetation, Irrigation and Dust Control

- 23) For portions of the project utilizing potable water or groundwater for irrigation or dust control, direct runoff of irrigation water shall be limited to the extent practicable and shall not cause downstream erosion or flooding.
- 24) For portions of the project utilizing reclaimed wastewater for irrigation or dust control, direct runoff of irrigation water and overflow from retention/detention structures or storage impoundments into any WUS is prohibited without the proper permits including, but not limited to, Arizona's Reclaimed Wastewater Permit and, if within the wetted area of a 25-year flood event (or within the floodplain in some cases), an AZPDES permit.

Site number	Latitude	Longitude*	Cowardin Class	Estimated amount of aquatic resource in review area (Acres)	Class of aquatic resource
Wash A	33.9681	-112.7960	Riverine	0.6	Non-section 10 – non-wetland
Wash A1	33.9694	-112.7947	Riverine	0.04	Non-section 10 – non-wetland

*Coordinate system NAD 83

Jurisdictional Waters Delineation at: Wickenburg Municipal Airport Expansion

Date: 8/19/09 Field Workers: R. Waldron

Page 2 of 2

Data Point ID	Width (ft)	Field Indicators of OHWM ³		Photo Reference ⁴ and Notes	
10	3.5	<input type="checkbox"/>	Cut Bank (>1 ft. high)	Swale (shallow depression)	Photo 12 – DS
		<input type="checkbox"/>	Shelving	Water stains	
		<input type="checkbox"/>	Braided wash	Sheet flow area	
		<input checked="" type="checkbox"/>	Sandy channel bottom	Debris (piles of vegetative matter)	
		<input checked="" type="checkbox"/>	Substrate change	Other (describe)	
		<input type="checkbox"/>	Cut Bank (>1 ft. high)	Swale (shallow depression)	
		<input type="checkbox"/>	Shelving	Water stains	
		<input type="checkbox"/>	Braided wash	Sheet flow area	
		<input type="checkbox"/>	Sandy channel bottom	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	Other (describe)	
		<input type="checkbox"/>	Cut Bank (>1 ft. high)	Swale (shallow depression)	
		<input type="checkbox"/>	Shelving	Water stains	
		<input type="checkbox"/>	Braided wash	Sheet flow area	
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		<input type="checkbox"/>	Shelving	Water stains	
		<input type="checkbox"/>	Braided wash	Sheet flow area	
		<input type="checkbox"/>	Sandy channel bottom	Debris (piles of vegetative matter)	
		<input type="checkbox"/>	Substrate change	Other (describe)	

³ U.S. Army Corps of Engineers: Regulatory Guidance Letter No. 05-02. June 14, 2005

⁴ Field photographs are available on file at SWCA



Appendix E

BIOLOGICAL INFORMATION

Appendix E

BIOLOGICAL INFORMATION

This appendix includes a copy of the Biological Evaluation prepared for the proposed project site. Additionally, this appendix includes a copy of the output report generated by the State of Arizona Game and Fish Department's Online Environmental Review Tool for the project area.

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Biological Evaluation of the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona

Prepared for

Town of Wickenburg

For submittal to

Federal Aviation Administration

Prepared by

SWCA Environmental Consultants

February 2010

**BIOLOGICAL EVALUATION OF THE WICKENBURG MUNICIPAL
AIRPORT MIDFIELD APRON PROJECT IN
MARICOPA COUNTY, ARIZONA**

Prepared for

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SWCA Project No. 15840.01

February 2010

1.0 INTRODUCTION

SWCA Environmental Consultants (SWCA) was contracted by Coffman Associates to complete a biological evaluation (BE) for the proposed airport midfield apron project, located north of U.S. Highway 60 west of the Town of Wickenburg, Maricopa County, Arizona (Figure 1). This project, which is for the Wickenburg Municipal Airport, includes construction of an approximately 30,000-square-foot midfield aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport. The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road, which is located on the south side of the airport. The airport apron and access road will be located on airport property and are needed to replace transient and Wickenburg-based aircraft parking areas lost as a result of hangar development to the west of the project site. The project area occurs within the N ½ of Section 8, Township 7 North, Range 5 West, Gila and Salt River Baseline and Meridian, Maricopa County, Arizona (Figure 2). This BE is in support of the Clean Water Act and to address the Endangered Species Act (ESA) of 1973, as amended.

The scope of work for this BE included

- review of the U.S. Fish and Wildlife Service (USFWS) species list for Maricopa County;
- review of the Arizona Game and Fish Department (AGFD) online occurrence records for special-status species near the project area;
- field reconnaissance of the project area; and
- evaluation of the potential for the species listed in this report to occur in the project area.

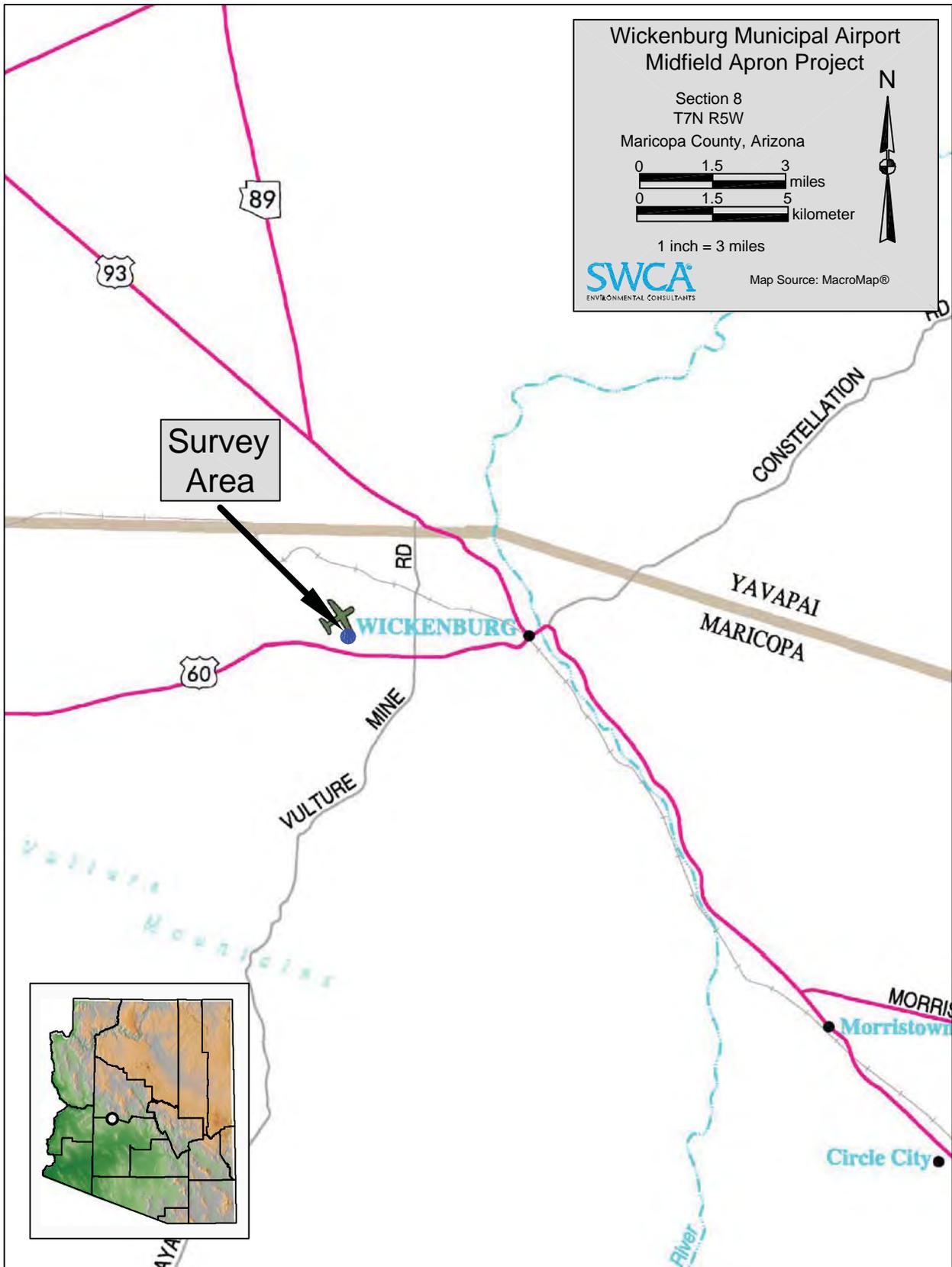
2.0 METHODS

An SWCA biologist conducted a field reconnaissance of the project area on January 14, 2010. A U.S. Geological Survey 7.5-minute topographic map (Vulture Peak, Arizona) and maps provided by the client were used for general orientation and to locate the project boundaries. The field reconnaissance consisted of a pedestrian survey of the project area to evaluate vegetation and landscape features considered important to the potential occurrence of special-status plant and animal species. Vegetation was classified to the community level according to the map “Biotic Communities of the Southwest” (Brown 1994).

2.1 Species Identification

The USFWS maintains a list of protected species and the Critical Habitat that is known to occur in each Arizona county. These species are currently listed or are proposed for listing as endangered or threatened under the Endangered Species Act of 1973 (16 United States Code [USC] §1531 *et seq.*). The list also includes Candidate species for proposal as threatened or endangered. The ESA specifically prohibits the “take” of a listed species. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.” Some bird species also receive legal protection under the federal Migratory Bird Treaty Act (16 USC §§703–712).

Only species listed by the USFWS are afforded protection under the ESA. The special-status species evaluated in this BE were based on the list of endangered, threatened, candidate, and conservation agreement species for Maricopa County, Arizona, available at the USFWS website (USFWS 2010). The USFWS species list is provided in Appendix A.



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Figure 1. General location of the project area.

The AGFD maintains a statewide database, the Heritage Data Management System (HDMS), which tracks records for federally listed species and other species of special concern. SWCA accessed the HDMS through the Arizona Heritage Geographic Information System (AZHGIS) online environmental review tool to determine whether any federally proposed or designated Critical Habitat or special-status species have been documented near the project area (AZHGIS 2010). The search results receipt is included in Appendix B.

The potential for occurrence in the project area of the species addressed in this BE was based on 1) documented records; 2) existing information on distribution; and 3) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features in the project area.¹ Possible impacts to these species were evaluated based on reasonably foreseeable project-related activities.

2.2 Species Evaluation

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows:

- *Known to occur*—the species has been documented in the project area by a reliable observer.
- *May occur*—the project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- *Unlikely to occur*—the project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the project area is clearly outside the species' currently known range.

Those species listed by the USFWS were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by USFWS include

- *May affect, is likely to adversely affect*—the project is likely to adversely affect a species if 1) the species is known to occur in the project area; and 2) project activities would disturb areas or habitat elements known to be used by the species, or would directly affect an individual.
- *May affect, is not likely to adversely affect*—the project is not likely to adversely affect a species if 1) the species may occur but its presence has not been documented; and 2) project activities would not result in disturbance to areas or habitat elements known to be used by the species.
- *No effect*—the project will have no effect on a species if 1) the species is considered unlikely to occur (range, vegetation, etc., are inappropriate); and 2) the species or its sign was not observed during surveys of the project area.

¹ We agree with Hall et al. (1997) that habitat is organism specific and thus not synonymous with vegetation community. However, we have refined their definition to read as follows: habitat is an area in which some members of a species regularly occur continuously or seasonally. In the field, habitat is operationally defined by the presence or absence of a species. Areas that appear suitable for a species but that have not been surveyed are considered possible habitat. We avoid using the term 'potential' with respect to habitat because potential is defined as 'capable of becoming but not yet in existence'; 'possible,' on the other hand, is defined as 'of uncertain likelihood'. We also avoid using the terms 'unoccupied habitat' or 'suitable, but unoccupied habitat,' which represent a contradiction in terms.

3.0 RESULTS

3.1 Ecological Overview

The project area is located in the northern-most portion of the Sonoran Desert at an elevation of approximately 2,350 feet above mean sea level (amsl). The project area is approximately 4 miles west of the Hassayampa River and 5 miles north of the Vulture Mountains. Hartman Wash is located just north of the project area, and two unnamed ephemeral washes flow across the project area. Portions of the project area have been previously disturbed from various construction activities, and vegetation in these areas is sparse. Disturbed areas include the northwestern portion of the project area near the runway, a narrow corridor along the fence in the southern portion of the project area, and the western portion of the project area along the ephemeral wash. The remaining portions of the project area consist of undisturbed native vegetation.

No agaves, aquatic habitats (including stock ponds), broadleaf deciduous riparian vegetation communities (i.e., communities containing willow, cottonwood, or ash, etc.), or potential bat roost sites (e.g., natural caves or mine features) occur in the project area. One multi-armed saguaro (*Carnegiea gigantea*) occurs in the project area.

3.2 Vegetation

Vegetation is typical of the Arizona Upland subdivision of the Sonoran Desertscrub biotic community; dominant vegetation in the undisturbed upland portions of project area includes creosote bush (*Larrea tridentata* var. *tridentata*) and velvet mesquite (*Prosopis velutina*). Less common species include triangle-leaf bursage (*Ambrosia deltoidea*), whitethorn acacia (*Acacia constricta*), barrel cactus (*Ferocactus wislizeni*), and fluffgrass (*Dasyochloa pulchella*). Xeroriparian vegetation along the ephemeral wash contains many of the same upland species but also includes catclaw acacia (*A. greggii* var. *greggii*) and threeawn (*Aristida* sp.). Vegetation in the disturbed portions of the project area includes desert broom (*Baccharis sarothroides*), flatcrown buckwheat (*Eriogonum deflexum* var. *deflexum*), and globemallow (*Sphaeralcea* sp.). Non-native vegetation includes prickly Russian thistle (*Salsola tragus*).

3.3 Special-Status Species Evaluation

None of the 14 species listed for Maricopa County by USFWS² have the potential to occur in the project area. The project area is either clearly beyond the known geographic or elevational range of these species or it does not contain vegetation or landscape features known to support these species, or both. Habitat requirements, potential for occurrence, and possible effects on these 14 species are summarized in Table 1. According to AZHGIS, the project area does not occur in or near any federally proposed or designated Critical Habitat, and there are no occurrence records for any of the 14 species listed for Maricopa County within 3 miles of the project area (AZHGIS 2010).

According to AZHGIS, there is an occurrence record for Sonoran desert tortoise (*Gopherus agassizii*) within 3 miles of the project area. Although not currently on the Maricopa County list, the USFWS announced a 90-day finding on August 28, 2009 addressing a petition to list Sonoran desert tortoise as a distinct population segment and designate Critical Habitat. The USFWS has determined that there is substantial information indicating that the listing of Sonoran desert tortoise may be warranted and has initiated a status review of the Sonoran population of the desert tortoise (USFWS 2009). During field

² American peregrine falcon (*Falco peregrinus anatum*), California brown pelican (*Pelecanus occidentalis californicus*), and Arizona agave (*Agave arizonica*) have been delisted by the USFWS; thus, they are not addressed in this BE.

reconnaissance, no desert tortoise sign or potential habitat was observed. There is also an occurrence record for the Wickenburg-Hassayampa Wildlife Corridor within 3 miles of the project area; however, this project would not impact that corridor zone.

Table 1. Federally Listed Species Potentially Occurring in Maricopa County, Arizona

Range or habitat information is from Heritage Data Management System (HDMS 2010); USFWS Arizona Ecological Services Field Office (USFWS 2010); *Arizona Rare Plant Field Guide* (Arizona Rare Plant Committee n.d.); and Corman and Wise-Gervais (2005).

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Arizona cliffrose (<i>Purshia subintegra</i>)	USFWS E	Found in rolling, limestone hills in Sonoran Desertscrub, usually on white Tertiary limestone lakebed deposits high in lithium, nitrates, and magnesium at elevations between 2,500 and 4,000 feet amsl. All four localities of this species are in central Arizona below the Mogollon Rim and include Burro Creek drainage (Mohave County); Horseshoe Lake (Maricopa County); Verde Valley (Yavapai County); and the San Carlos Indian Reservation (Graham County).	Unlikely to occur. There are no rolling limestone hills in the project area. The nearest recorded locations of the Arizona cliffrose to the project area are more than 60 miles to the east and northwest from the project area in northwestern Maricopa County.	No effect.
Bald eagle (<i>Haliaeetus leucocephalus</i> [desert population])	USFWS T	Nesting sites are usually isolated, located high in trees or on cliffs that are close to water. A small, resident population of approximately 40 pairs nests along the Salt, Verde, Gila, Bill Williams, Agua Fria, San Pedro, and San Francisco rivers and along Tonto and Canyon creeks. At least 200 to 300 winter each year throughout Arizona, with the greatest numbers found along the Mogollon Rim east through the White Mountains.	Unlikely to occur. There are no water sources or potential nesting sites in or immediately adjacent to the project area.	No effect.
California least tern (<i>Sterna antillarum browni</i>)	USFWS E	Occurs in bays and lagoons and forms breeding colonies in the adjacent open sandy beaches, dunes, or disturbed sites within their normal range; however, also documented to use open, sandy flat areas along shorelines of inland watercourses.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area. The nearest recorded location of the California least tern to the project area is near the Agua Fria River in west Phoenix, which is more than 40 miles southeast of the project area (personal communication, G. Beatty, USFWS 2009, to E. Gladding, SWCA).	No effect.
Desert pupfish (<i>Cyprinodon macularius</i>)	USFWS E	Found in shallow waters of desert springs, small streams, and marshes at elevations below 5,000 feet amsl. One natural population still occurs in Quitobaquito Spring and Quitobaquito Pond in Pima County, and reintroductions have been made in Pima, Pinal, Maricopa, Graham, Cochise, La Paz, and Yavapai counties in Arizona. New introductions continue.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area.	No effect.

Table 1. Federally Listed Species Potentially Occurring in Maricopa County, Arizona (Continued)

Range or habitat information is from Heritage Data Management System (HDMS 2010); USFWS Arizona Ecological Services Field Office (USFWS 2010); *Arizona Rare Plant Field Guide* (Arizona Rare Plant Committee n.d.); and Corman and Wise-Gervais (2005).

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Gila topminnow (<i>Poeciliopsis occidentalis occidentalis</i>)	USFWS E	Occurs in small streams, springs, and cienegas at elevations below 4,500 feet amsl, primarily in shallow areas with aquatic vegetation and debris for cover. In Arizona, most of the remaining native populations are in the Santa Cruz River system.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area.	No effect.
Lesser long-nosed bat (<i>Leptonycteris curasoae yerbabuena</i>)	USFWS E	Found in southern Arizona from the Picacho Mountains southwesterly to the Agua Dulce Mountains and southeasterly to the Galiuro and Chiricahua mountains at elevations between 1,600 and 11,500 feet amsl. Roosts in caves, abandoned mines, and unoccupied buildings at the base of mountains where agave, saguaro, and organ pipe cacti are present. Forages at night on nectar, pollen, and fruit of paniculate agaves and columnar cacti. The foraging radius of <i>Leptonycteris</i> bats may be 30 to 60 miles or more.	Unlikely to occur. There are no potential roost sites and there is only one saguaro in the project area. It is unlikely that bats would use the project area for foraging.	No effect.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	USFWS T	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally nests in older forests of mixed conifers or ponderosa pine–Gambel oak. Nests in live trees on natural platforms (e.g., dwarf mistletoe brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet amsl.	Unlikely to occur. There are no montane forests, woodlands, or shady, wooded canyons in the project area.	No effect.
Razorback sucker (<i>Xyrauchen texanus</i>)	USFWS E	Found in backwaters, flooded bottomlands, pools, side channels, and other slower-moving habitats at elevations below 6,000 feet amsl. In Arizona, populations are restricted to Lakes Mohave and Mead and the lower Colorado River below Havasu in the Lower Basin. In the Upper Basin, small, remnant populations are found in the Green, Yampa, and main stem Colorado rivers.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area.	No effect.
Roundtail chub (<i>Gila robusta</i>)	USFWS C	Found in cool to warm water, mid-elevation streams and rivers with pools adjacent to swifter riffles and runs. Occurs at elevations between 1,210 to 7,220 feet amsl in two tributaries of the Little Colorado River, several tributaries of the Bill Williams River basin, the Salt River and four of its tributaries, the Verde River and five of its tributaries, Aravaipa Creek, and Eagle Creek.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area.	No effect.

Table 1. Federally Listed Species Potentially Occurring in Maricopa County, Arizona (Continued)

Range or habitat information is from Heritage Data Management System (HDMS 2010); USFWS Arizona Ecological Services Field Office (USFWS 2010); *Arizona Rare Plant Field Guide* (Arizona Rare Plant Committee n.d.); and Corman and Wise-Gervais (2005).

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Sonoran pronghorn (<i>Antilocapra americana sonoriensis</i>)	USFWS E	Found in Sonoran Desertscrub within broad, intermountain alluvial valleys with creosote-bursage and paloverde–mixed cacti associations at elevations between 2,000 and 4,000 feet amsl. The only extant U.S. population is in southwestern Arizona.	Unlikely to occur. Although the project area contains vegetation communities similar to ones in which this species is known to occur, the project area is more than 80 miles north of the current range of this species.	No effect.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	USFWS E	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder, saltcedar, Russian olive, buttonbush, and arrowweed are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet tall, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet amsl.	Unlikely to occur. There is no riparian vegetation in or adjacent to the project area.	No effect.
Woundfin (<i>Plagopterus argentissimus</i>)	USFWS E	Found in shallow, warm, turbid, fast-flowing rivers at elevations below 4,500 feet amsl. Extirpated from almost all of its historical range except the main stem Virgin River from Pah Tempe Springs to Lake Mead in northwestern Arizona. In Arizona, Critical Habitat accounts for approximately 31.6 miles of the main stem Virgin River and its 100-year floodplain in Mohave County, Arizona. Experimental, nonessential designation in portions of the Verde, Gila, San Francisco, and Hassayampa rivers and Tonto Creek.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area.	No effect.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	USFWS C	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet amsl. Dense understory foliage appears to be an important factor in nest site selection. The highest concentrations in Arizona are along the Agua Fria, San Pedro, upper Santa Cruz, and Verde river drainages and Cienega and Sonoita creeks.	Unlikely to occur. There is no riparian woodland vegetation in or adjacent to the project area.	No effect.

Table 1. Federally Listed Species Potentially Occurring in Maricopa County, Arizona (Continued)

Range or habitat information is from Heritage Data Management System (HDMS 2010); USFWS Arizona Ecological Services Field Office (USFWS 2010); *Arizona Rare Plant Field Guide* (Arizona Rare Plant Committee n.d.); and Corman and Wise-Gervais (2005).

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Yuma clapper rail (<i>Rallus longirostris yumanensis</i>)	USFWS E	In Arizona, found in freshwater marshes that are often dominated by cattails, bulrushes, and sedges at elevations below 4,500 feet amsl. The range includes the Colorado River from Lake Mead to Mexico; the Gila and Salt rivers upstream to the area of the Verde confluence; Picacho Reservoir; and the Tonto Creek arm of Roosevelt Lake. This species may be expanding into other suitable marsh habitats in western and central Arizona.	Unlikely to occur. There are no water sources suitable for this species in or adjacent to the project area.	No effect.

***USFWS Status Definitions**

C = Candidate. Candidate species are those for which USFWS has sufficient information on biological vulnerability and threats to support proposals to list as endangered or threatened under the ESA. However, proposed rules have not yet been issued because they are precluded by other listing activity that is a higher priority. This listing category has no legal protection.

E = Endangered. Endangered species are those in imminent jeopardy of extinction. The ESA specifically prohibits the take of a species listed as endangered. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

T = Threatened. Threatened species are those in imminent jeopardy of becoming Endangered. The ESA specifically prohibits the take of a species listed as threatened. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

4.0 LIMITATIONS AND WARRANTY

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species’ listing status in effect at the time this evaluation was performed, as outlined in the species evaluation.

The results and conclusions of this report represent the best professional judgment of SWCA scientists and are based on information provided by the project proponent and on information obtained from agencies and other sources during the course of the study. No other warranty, expressed or implied, is made. This report should be reviewed by the appropriate regulatory agencies prior to any detailed site-planning or construction activities.

5.0 LITERATURE CITED

- Arizona Heritage Geographic Information System (AZHGIS). 2010. Arizona Game and Fish Department online environmental review tool. Available at: <http://www.azgfd.gov/hgis>. Accessed January 4, 2010.
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- . 2009. Endangered and threatened wildlife and plants; 90-day finding on a petition to list the Sonoran population of desert tortoise (*Gopherus agassizii*) as a distinct population segment (DPS) with critical habitat. *Federal Register* 74:44335–44344.

APPENDIX A
USFWS Species List

Maricopa County

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Arizona cliffrose	<i>Purshia subintegra</i>	Endangered	Evergreen shrub of the rose family (Rosaceae). Bark pale gray and shreddy with dense hairs. Leaves have 1-5 lobes and edges curl downward (revolute). Flowers: 5 petals, white or yellow <0.5 inches long.	Graham, Maricopa, Mohave, Yavapai	< 4,000 ft	White limestone soils derived from tertiary lakebed deposits.	Occurs in central Arizona at Horseshoe Lake in the Burro Creek drainage, and near Cottonwood in the Verde Valley.
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	Large, adults have white head and tail. Height 28-38 inches; wingspan 66-96 inches. Dark with varying degrees of mottled brown plumage. Feet bare of feathers.	Gila, Graham, La Paz, Maricopa, Mohave, Pinal, Yavapai, Yuma	Varies	Large trees or cliffs near water (reservoirs, rivers, and streams) with abundant prey	Some birds are nesting residents while a larger number winters along rivers and reservoirs. Once endangered (32 FR 4001, 03-11-1967; 43 FR 6233, 02-14-78) because of reproductive failures from pesticide poisoning and loss of habitat, this species was downlisted to threatened on August 11, 1995, and delisted August 8, 2007. Threatened status reinstated for Desert nesting bald eagles
California Least Tern	<i>Sterna antillarum browni</i>	Endangered	Least terns are smallest of the North American Terns. Body length is 21 to 24 cm (8 to 9 inches), with a wingspan of 45 to 51 cm (18 to 20 inches). Characterized by a black crown and loreal stripe on their head, snowy white forehead and underside, and gray upperparts. Outer two primaries are black, bill is yellow or orange with black tip, and legs are orange. Males have a wider dark loreal stripe but sexes are mostly distinguished by behavior. Immatures have darker plumage, dark bill, and dark eye strips on white heads	Maricopa, Mohave, Pima	< 2,000 ft	Open, bare or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems.	Breeding occasionally documented in Arizona; migrants may occur more frequently. Feeds primarily on fish in shallow waters and secondarily on invertebrates. Nests in a simple scrape on sandy or gravelly soil.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Desert pupfish	<i>Cyprinodon macularius</i>	Endangered	Small (2 inches) smoothly rounded body shape with narrow vertical bars on the sides. Breeding males blue on head and sides with yellow on tail. Females and juveniles tan to olive colored back and silvery sides.	Cochise, Graham, Maricopa, Pima, Pinal, Santa Cruz, Yavapai	< 4,000 ft	Shallow springs, small streams, and marshes. Tolerates saline and warm water.	Two subspecies are recognized: Desert Pupfish (<i>C. m. macularius</i>) and Quitobaquito Pupfish (<i>C. m. eremus</i>). Critical habitat includes Quitobaquito Springs, Pima County, portions of San Felipe Creek, Carrizo Wash, and Fish Creek Wash, Imperial County, California.
Gila topminnow	<i>Poeciliopsis occidentalis occidentalis</i>	Endangered	Small (2 inches), guppy-like, live bearing, lacks dark spots on its fins. Breeding males are jet black with yellow fins.	Cochise, Gila, Graham, Maricopa, Pima, Santa Cruz, Yavapai	< 4,500 ft	Small streams, springs, and cienegas vegetated shallows.	Species historically also occurred in backwaters of large rivers but is currently isolated to small streams and springs.
Lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuense</i>	Endangered	Elongated muzzle, small leaf nose, and long tongue. Yellowish brown or gray above and cinnamon brown below. Tail minute and appears to be lacking. Easily disturbed.	Cochise, Gila, Graham, Greenlee, Maricopa, Pima, Pinal, Santa Cruz, Yuma	1,600-11,500 ft	Desert scrub habitat with agave and columnar cacti present as food plants.	Day roosts in caves and abandoned tunnels. Forages at night on nectar, pollen, and fruit or particulate agaves and columnar cacti. This species is migratory and is present in Arizona usually from April to September and south of the border the remainder of the year.
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Threatened	Medium sized with dark eyes and no ear tufts. Brownish and heavily spotted with white or beige.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai	4,100-9,000 ft	Nests in canyons and dense forests with multi-layered foliage structure.	Generally nest in older forests of mixed conifer or ponderosa pine/gambel oak type, in canyons, and use variety of habitats for foraging. Sites with cool microclimates appear to be of importance or are preferred. Critical habitat was finalized on August 31, 2004 (69 FR 53182) in Arizona in Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Navajo, Pima, Pinal, Santa Cruz, and Yavapai counties.
Rezerback sucker	<i>Xyrauchen texanus</i>	Endangered	Large, up to 3 feet long and up to 6 lbs, high sharp-edged keel-like hump behind the head. Head flattened on top. Olive-brown above to yellowish below.	Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Pinal, Yavapai, Yuma	< 5,000 ft	Riverine and lacustrine areas, generally not in fast moving water and may use backwaters	Big River fish also found in Horseshoe reservoir (Maricopa County). Critical habitat includes the 100-year floodplain of the river through the Grand Canyon from confluences with Pinal River to Hoover Dam, Hoover Dam to Davis Dam, Parker Dam to Imperial Dam. Also Gila River from Arizona/New Mexico border to Coolidge Dam, and Salt River from Hwy 60/SR77 Bridge to Roosevelt Dam, Verde River from FS boundary to Horseshoe Lake.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Sonoran pronghorn	<i>Antilocapra americana sonoriensis</i>	Endangered	Upperparts tan; underparts, rump, and two bands across the neck are white. Male has two black cheek pouches. Hooded with slightly curved black horns leaving a single prong. Smallest and palest of the pronghorn subspecies.	Maricopa, Pima, Yuma	2,000-4,000 ft	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations.	Typically, bajadas are used as lawning areas and sandy dune areas provide food seasonally. Cacti (jumping cholla) appears to make up substantial part of diet. This subspecies also occurs in Mexico.
Southwestern willow flycatcher	<i>Empidonax traillii eximius</i>	Endangered	Small passerine (about 6 inches) grayish-green back and wings, whitish throat, light olive-gray breast and pale yellowish belly. Two wingbars visible. Eye-ring faint or absent.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	< 8,500 ft	Cottonwood/willow and tamarisk vegetation communities along rivers and streams.	Migratory riparian-obligate species that occupies breeding habitat from late April to September. Distribution within its range is restricted to riparian corridors. Difficult to distinguish from other members of the Empidonax complex by sight alone. Training seminar required for those conducting flycatcher surveys. Critical habitat was finalized on October 19, 2005 (50 CFR 60886). In Arizona there are critical habitat segments in Apache, Cochise, Gila, Graham, Greenlee, Maricopa, Mohave, Pima, Pinal, and Yavapai counties.
Woundfin	<i>Flagelliferus argentissimus</i>	Endangered	Small (4 inches) silver minnow with fairly large fins and a sharp dorsal fin spine.	Mohave and Maricopa	< 4,500 ft	Inhabits shallow, warm, turbid, fast-flowing water. Tolerates high salinity.	Native population only in Virgin River. Designated critical habitat includes the Virgin River and its 100-year floodplain. Experimental non-essential populations (50 FR 30193; 07-24-1985) designated in portions of the Verde, Gila, San Francisco, and Hassayampa rivers and Tonto Creek. Species also occurs in Washington County, UT and Clark County, NV.
Yuma clapper rail	<i>Rallus longirostris yumanensis</i>	Endangered	Water bird with long legs and short tail. Long, slender decurved bill. Mottled brown or gray on its rump. Flanks and undersides are dark gray with narrow vertical stripes producing a barring effect.	Gila, La Paz, Maricopa, Mohave, Pinal, Yuma	< 4,500 ft	Fresh water and brackish marshes.	Species is associated with dense emergent riparian vegetation. Requires wet substrate (mudflat, sandbar) with dense herbaceous or woody vegetation for nesting and foraging. Channelization and marsh destruction are primary sources of habitat loss.

COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
Roundtail Chub	<i>Gila robusta</i>	Candidate	Member of the minnow-family Cyprinidae and characterized by streamlined body shape. Color usually olive gray with silvery sides and a white belly. Breeding males develop red or orange coloration on the lower half of the cheeks and on the bases of paired fins. Individuals may reach 49.0 cm (19.3 in) but usually average 25-30 cm (9.8 - 11.8 in).	Apache, Coconino, Gila, Graham, Greenlee, LaPaz, Maricopa, Mohave, Navajo, Pinal, and Yavapai	1,000-7,500 ft	Cool to warm waters of rivers and streams, often occupy the deepest pools and eddies of large streams.	Historical range of roundtail chub included both the upper and lower Colorado River basins. A 2009 status review determined that the lower Colorado River basin roundtail chub population segment (Arizona and New Mexico) qualifies as a distinct vertebrate population segment (DPS). Populations in the Little Colorado, Bill Williams, and Gila River basins are considered candidate species.
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Candidate	Medium-sized bird with a slender, long-billed profile, slightly down-curved bill that is blue-black with yellow on the lower half. Plumage is grayish-brown above and white below, with rufous primary flight feathers	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	< 6,500 ft	Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries).	Neotropical migrant that winters primarily in South America and breeds primarily in the U.S. (but also in southern Canada and northern Mexico). As a migrant it is rarely detected, can occur outside of riparian areas. Cuckoos are found nesting statewide, mostly below 5,000 feet in central, western, and southeastern Arizona. Concern for cuckoos are primarily focused upon alterations to its nesting and foraging habitat. Nesting cuckoos are associated with relatively dense, wooded, streamside riparian habitat, with varying combinations of Fremont cottonwood, willow, velvet ash, Arizona walnut, mesquite, and tamarisk. Some cuckoos have also been detected nesting in velvet mesquite, netleaf hackberry, Arizona sycamore, Arizona alder, and some exotic neighborhood shade trees.

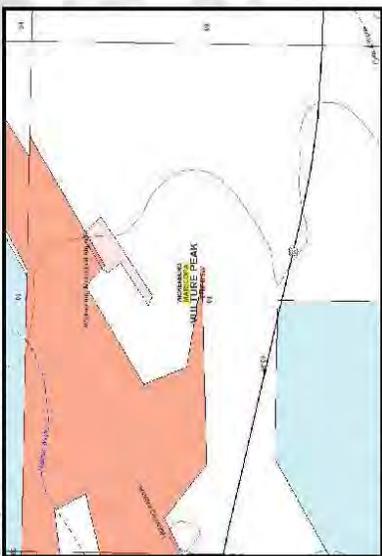
COMMON NAME	SCIENTIFIC NAME	STATUS	DESCRIPTION	COUNTY	ELEVATION	HABITAT	COMMENTS
American peregrine falcon	<i>Falco peregrinus anatum</i>	Delisted	A crow-sized falcon with slate blue-gray on the back and wings, and white on the underside, a black head with vertical "bandit's mask" pattern over the eyes, long pointed wings, and a long trailing tail made during breeding. Very adept flyers and hunters, reaching diving speeds of 200 mph.	Apache, Cochise, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma	3,500-9,000 ft	Areas with rocky, steep cliffs, primarily near water, where prey (primarily shorebirds, songbirds, and waterfowl) concentrations are high. Nests are found on ledges or cliffs, and sometimes on man-made structures such as office towers and bridge abutments.	Species recovered with over 1,650 breeding birds in the US and Canada
Arizona agave	<i>Agave arizonica</i>	Delisted	Member of the agave family. Has rosettes of bright green leaves, 17-24cm long and 2-4cm wide, broadest in the middle. Flowers are small, pale yellow, and jar shaped.	Gila, Maricopa, Yavapai	3,600-5,800 ft	Occurs on open slopes in chaparral or juniper grasslands. Prefers shallow, cobbled, and gravelly soils on steep slopes.	Arizona agave is a hybrid produced by a crossing of two other common agave species (<i>A. chrysantha</i> x <i>A. tourmeyana</i> ssp. <i>tourmeyana</i>).
California brown pelican	<i>Pelecanus occidentalis californicus</i>	Delisted	Large, dark gray-brown water bird with webbed feet, pouch underneath its long bill, and wingspan of 7 ft. Adults have a white head and neck, brownish black breast, and silver gray upper parts.	Gila, La Paz, Maricopa, Mohave, Pinal, Yuma	Varies	Coastal land and islands, species found occasionally around Arizona's lakes and rivers.	Considered an uncommon transient in Arizona. Most observations recorded along the Colorado River and in the Gila Valley. Individuals known to wander up from Mexico in summer and fall. No breeding has been documented in Arizona. Delisted on December 17, 2009.

APPENDIX B

AZGIS Online Environmental Review Tool

Arizona's On-line Environmental Review Tool
 Search ID: 20100104011119
 Project Name: Wickenburg Municipal Airport Expansion
 Date: 1/4/2010 1:50:00 PM

Project Location



The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 3 miles of Project Vicinity:

Name	Common Name	FWS	USFS	BLM	State
Gopherus agassizii (Sonoran Populaton)	Sonoran Desert Tortoise	SC		S	WSC
Wickenburg - Hassayampa Linkage Design	Wildlife Corridor				

Project Name: Wickenburg Municipal Airport Expansion
Submitted By: Jeremy Doschka
On behalf of: ACOE
Project Search ID: 20100104011119
Date: 1/4/2010 1:49:57 PM
Project Category: Transportation & Infrastructure, Airports, Construction of new runways, terminals/concourses, other facilities
Project Coordinates (UTM Zone 12-NAD 83): 334025.551, 3760090.973 meter
Project Area: 4.218 acres
Project Perimeter: 781.952 meter
County: MARICOPA
USGS 7.5 Minute Quadrangle ID: 1106
Quadrangle Name: VULTURE PEAK
Project locality is not anticipated to change

Location Accuracy Disclaimer

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of the Project Review Receipt content.

Page 1 of 6 APPLICATION INITIALS: _____

Arizona's On-line Environmental Review Tool
Search ID: 20100104011119
Project Name: Wickenburg Municipal Airport Expansion
Date: 1/4/2010 1:50:00 PM

Please review the entire receipt for project type recommendations and/or species or location information and retain a copy for future reference. If any of the information you provided did not accurately reflect this project, or if project plans change, another review should be conducted, as this determination may not be valid.

Arizona's On-line Environmental Review Tool:

1. This On-line Environmental Review Tool inquiry has generated recommendations regarding the potential impacts of your project on Special Status Species (SSS) and other wildlife of Arizona. SSS include all U.S. Fish and Wildlife Service federally listed, U.S. Bureau of Land Management sensitive, U.S. Forest Service sensitive, and Arizona Game and Fish Department (Department) recognized species of concern.
2. These recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation). These recommendations are preliminary in scope, designed to provide early considerations for all species of wildlife, pertinent to the project type you entered.
3. This receipt, generated by the automated On-line Environmental Review Tool does not constitute an official project review by Department biologists and planners. Further coordination may be necessary as appropriate under the National Environmental Policy Act (NEPA) and/or the Endangered Species Act (ESA).

The U.S. Fish and Wildlife Service (USFWS) has regulatory authority over all federally listed species under the ESA. Contact USFWS Ecological Services Offices: <http://arizonaes.fws.gov/>.

Phoenix Main Office
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021
Phone 602-242-0210
Fax 602-242-2513

Tucson Sub-Office
201 North Bonita, Suite 141
Tucson, AZ 85745
Phone 520-670-6144
Fax 520-670-6154

Flagstaff Sub-Office
323 N. Leroux Street, Suite 101
Flagstaff, AZ 86001
Phone 928-226-0814
Fax 928-226-1099

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area.
2. The Department's Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there.
3. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HDMS data contains information about species occurrences that have actually been reported to the Department.

Arizona Game and Fish Department Mission

To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and

Arizona's On-line Environmental Review Tool
Search ID: 20100104011119
Project Name: Wickenburg Municipal Airport Expansion
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management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.

Project Category: Transportation & Infrastructure, Airports, Construction of new runways, terminals/concourses, other facilities

Project Type Recommendations:

Based on the project type entered: coordination with Arizona Department of Environmental Quality may be required (<http://www.azdeq.gov/>).

Based on the project type entered: coordination with County Flood Control districts may be required.

Based on the project type entered: coordination with State Historic Preservation Office may be required (<http://azstateparks.com/SHPO/index.html>)

Based on the project type entered: coordination with U.S. Army Corps of Engineers may be required (<http://www.spl.usace.army.mil/regulatory/phonedir.html>)

Based on the project type entered: coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (<http://arizonaes.fws.gov/>)

Consider designs and tower modifications that reduce or eliminate impacts to migratory birds. Please refer to the U.S. Fish and Wildlife Service's page on cellular towers in Arizona <http://www.fws.gov/arizonaaes/CellTower.htm>. On this page there are guidelines for tower siting, construction, operation, and decommissioning. Also see the Service's Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning, <http://www.fws.gov/habitatconservation/communicationtowers.htm>.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (including spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project

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Project Name: Wickenburg Municipal Airport Expansion
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Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

Planning: consider impacts of lighting intensity on mammals and birds and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly.

Project Location and/or Species recommendations:

Heritage Data Management System records indicate that Sonoran desert tortoise have been documented within the vicinity of your project area (refer to the species list on page 1 of the receipt). Please review the Tortoise Handling Guidelines found on the Environmental Review Home Page: <http://www.azgfd.gov/hgts/guidelines.aspx>.

HDMS records indicate your project is in or near an identified wildlife habitat linkage corridor. Project planning and implementation efforts should focus on maintaining adequate opportunities for wildlife permeability. For information on the linkage assessment and wildlife species that may be affected refer to: <http://www.comdordesign.org/arizona>. Contact your Arizona Game and Fish Department Regional Office for specific project recommendations:

http://www.azgfd.gov/inside_azgfd/agency_directory.shtml

Recommendations Disclaimer:

1. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project.
2. These recommendations are proposed actions or guidelines to be considered during **preliminary project development**.
3. Additional site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. The Department is interested in the conservation of all fish and wildlife resources, including those Special Status Species listed on this receipt, and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
6. **Further coordination requires the submittal of this initiated and signed Environmental Review Receipt with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map).**
7. Upon receiving information by AZGFD, please allow 30 days for completion of project reviews. Mail requests to:

**Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600**

Arizona's On-line Environmental Review Tool
Search ID: 20100104011119
Project Name: Wickenburg Municipal Airport Expansion
Date: 1/4/2010 1:50:00 PM

Fax Number: (623) 236-7366

Terms of Use

By using this site, you acknowledge that you have read and understand the terms of use. Department staff may revise these terms periodically. If you continue to use our website after we post changes to these terms, it will mean that you accept such changes. If at any time you do not wish to accept the Terms, you may choose not to use the website.

1. This Environmental Review and project planning website was developed and intended for the purpose of screening projects for potential impacts on resources of special concern. By indicating your agreement to the terms of use for this website, you warrant that you will not use this website for any other purpose.
2. Unauthorized attempts to upload information or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. The Department reserves the right at any time, without notice, to enhance, modify, alter, or suspend the website and to terminate or restrict your access to the website.
4. This Environmental Review is based on the project study area that was entered. The review must be redone if the project study area, location, or the type of project changes. If additional information becomes available, this review may need to be reconsidered.
5. A signed and initialed copy of the Environmental Review Receipt indicates that the entire receipt has been read by the signer of the Environmental Review Receipt.

Security:

The Environmental Review and project planning web application operates on a complex State computer system. This system is monitored to ensure proper operation, to verify the functioning of

applicable security features, and for other like purposes. Anyone using this system expressly consents to such monitoring and is advised that if such monitoring reveals possible evidence of criminal activity, system personnel may provide the evidence of such monitoring to law enforcement officials. Unauthorized attempts to upload or change information; to defeat or circumvent security measures; or to utilize this system for other than its intended purposes are prohibited.

This website maintains a record of each environmental review search result as well as all contact information. This information is maintained for internal tracking purposes. Information collected in this application will not be shared outside of the purposes of the Department.

If the Environmental Review Receipt and supporting material are not mailed to the Department or other appropriate agencies within six (6) months of the Project Review Receipt date, the receipt is considered to be null and void, and a new review must be initiated.

Print this Environmental Review Receipt using your Internet browser's print function and keep it for your records. Signature of this receipt indicates the signer has read and understands the information provided.

Signature: _____

Date: _____

Proposed Date of Implementation: _____

Arizona's On-line Environmental Review Tool
Search ID: 20100104011119
Project Name: Wickenburg Municipal Airport Expansion
Date: 1/4/2010 1:50:00 PM

Please provide point of contact information regarding this Environmental Review.

Application or organization responsible for project implementation

Agency/organization: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

Person Conducting Search (if not applicant)

Agency/organization: _____

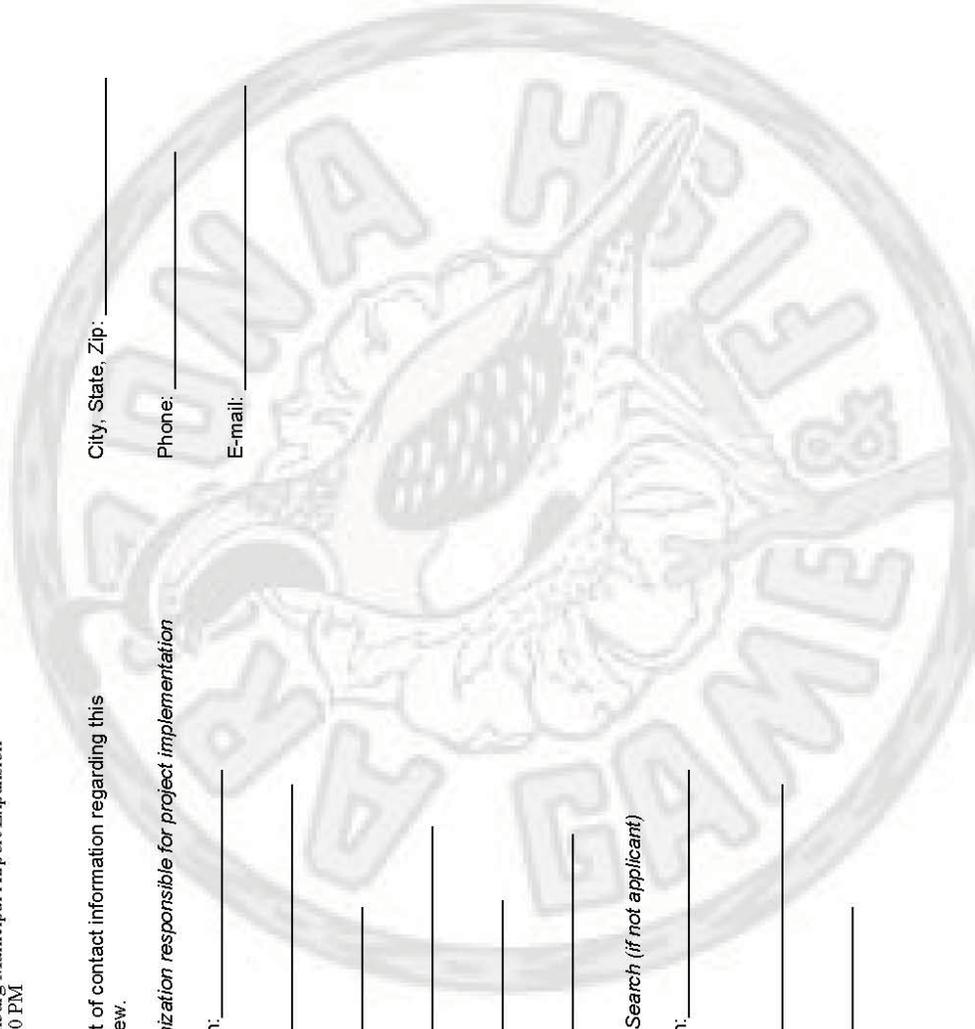
Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____



Page 6 of 6 APPLICATION INITIALS: _____



U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009-2007

April 7, 2010

Ms. Brenda Smith
Assistant Field Supervisor for Northern Arizona
Fish and Wildlife Service, Arizona Ecological Services Field Office
2321 W. Royal Palm Rd., Suite 103
Phoenix, AZ 85021

Dear Ms. Smith:

Wickenburg Municipal Airport
Wickenburg, Arizona
Section 7 Consultation

The Federal Aviation Administration (FAA) and the Town of Wickenburg are preparing environmental documentation and are providing federal funding assistance for the proposed project to construct approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and an associated access road at Wickenburg Municipal Airport. The airport is owned and operated as a public use airport by the Town of Wickenburg (Exhibit A). The FAA is the lead federal agency thereby charged with conducting Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS).

Consultation Initiation

In an effort to ensure compliance with the Endangered Species Act of 1973, (ESA) as amended, the potential effects of the proposed project on special status fish, wildlife, and plant species were evaluated. The Biological Evaluation (BE) of the Wickenburg Municipal Airport Midfield Project, dated February 2010, provides information and comparative analyses to determine if the proposed action would result in potentially significant adverse effects to listed species or designated critical habitat (Enclosure). Species listed as Threatened or Endangered under the ESA under the jurisdiction of USFWS that may occur in the vicinity of the project sites. The FAA is initiating Section 7 consultation with your office, effective by the date of this letter.

Project Information

The proposed undertaking will allow for proposed project to construct an approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport (Exhibit B-C). The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road located on the south side of the airport. The access road will be equipped with a security gate to restrict access to only those with permission to enter the south side hangar and apron areas. The airport apron and access road will be located on airport property and are need to replace transient and based aircraft parking areas that were lost as a result of hangar development to the west of the project site.

Anticipated environmental impacts resulting from the proposed mid-field apron project relate primarily to the relocation and channelization of a wash located within the project site. The location of the wash and the proposed realignment are depicted on Exhibit C. The proposed parking apron will meet the needs of existing and forecast future airport users, as described in the Wickenburg Municipal Airport Master Plan, 2002.

Species Evaluation

SWCA Environmental Consultants (SWCA) conducted field surveys in January 2010. The project area is located in the northern-most portion of the Sonoran Desert at an elevation of approximately 2,350 feet above mean sea level. The project area is approximately 4 miles west of the Hassayampa River and 5 miles north of the Vulture Mountains. Hartman Wash is located just north of the project area, and two unnamed ephemeral washes flow across the project area. Portions of the project area have been previously disturbed from various construction activities, and vegetation in these areas is sparse. Disturbed areas include the northwestern portion of the project area near the runway, a narrow corridor along the fence in the southern portion of the project area, and the western portion of the project area along the ephemeral wash. The area remaining consists of undisturbed native vegetation.

The BE states that none of the 14 species listed for Maricopa County by the USFWS have the potential to occur in the project area. The report notes that the project area is either beyond the known geographic or elevation range of the listed species or it does not contain vegetation or landscape features known to support these species, or both.

Project Consultation

Based on the information provided in the BE, the FAA has determined that the proposed undertaking would not affect any federally listed endangered or threatened species of flora and fauna or designated critical habitat. We request your written concurrence with our determination. Please provide your written response within thirty (30) days, or we will presume you have no comments regarding the proposed undertaking.

FAA Contact Information

If needed, the FAA and Airport staff are available to meet to discuss this Section 7 consultation. If you have any additional questions concerning this matter, please feel free to contact me at (310) 725-3614, or by e-mail at Roxana.Hernandez@faa.gov.

Sincerely,



Roxana Hernandez
Environmental Protection Specialist

Enclosure: Biological Evaluation of the Wickenburg Municipal Airport Midfield Project

Exhibits: A, Vicinity Map
B, Airport Facilities
C, Proposed Action



Mike_Martinez@fws.gov

09/10/2010 01:44 PM

To Roxana Hernandez/AWP/FAA@FAA

cc

bcc

Subject Fw: Wickenburg Airport - EA FWS Consultation?

Roxana, we received the subject letter on April 9, 2010. I reviewed and filed it. I didn't note any issues of concern. Determinations of "no effect" do not require a response from FWS. If you have any questions, feel free to call me. Thank you.

Mike Martinez
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
2321 W. Royal Palm Rd, Ste. 103
Phoenix, AZ 85021
(602) 242-0210

----- Forwarded by Mike A Martinez/R2/FWS/DOI on 09/10/2010 01:33 PM -----

Debra Bills/R2/FWS/DOI

To Mike A Martinez/R2/FWS/DOI@FWS

cc

08/31/2010 12:48 PM

Subject Fw: Wickenburg Airport - EA FWS Consultation?

did you respond to this?
Debra Bills
US Fish and Wildlife Service
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021
602/242-0210

----- Forwarded by Debra Bills/R2/FWS/DOI on 08/31/2010 12:38 PM -----

Brenda Smith/R2/FWS/DOI

To Roxana.Hernandez@faa.gov

cc Debra Bills/R2/FWS/DOI@FWS

08/31/2010 12:00 PM

Subject Re: Wickenburg Airport - EA FWS Consultation? [Link](#)

Roxanna,

This action is in Debra Bill's area of responsibility, so I am copying her on this email.

Brenda

Brenda Smith
Assistant Field Supervisor
Flagstaff Ecological Services Suboffice
Office: 928-226-0614, ext. 101
Fax: 928-226-1099

Cell: 928-864-6072

Roxana.Hernandez@faa.gov

08/31/2010 11:30 AM

To brenda_smith@fws.gov

cc

Subject Wickenburg Airport - EA FWS Consultation?

Good Morning Brenda,

I was wondering if you had received that attached letter and if FWS had any comments or concerns regarding the proposed undertaking.

Please let me know.

Thank you,

Roxana Hernandez
FAA, Western-Pacific Region
Los Angeles Airports District Office, LAX-600.2
15000 Aviation Boulevard
Lawndale, CA 90261

(310) 725-3614

Roxana.Hernandez@faa.gov [attachment "E25_FWS_Consultation_Letters.pdf" deleted by Mike A Martinez/R2/FWS/DOI]



Appendix F

CLASS III
ARCHAEOLOGICAL INVENTORY

Appendix F

CLASS III ARCHAEOLOGICAL INVENTORY

This appendix includes the results of a Class III Archaeological Inventory for proposed mid-field apron site at Wickenburg Municipal Airport to determine the presence of properties eligible for inclusion on the National Register of Historic Places (NHRP). The report indicates that three isolated occurrences were identified within the proposed project site. Two of the isolated occurrences are identified as single pieces of lithic debitage and one is an oval-shaped pile of native rocks. Isolated occurrences do not meet the Arizona State Museum (ASM) definition of an archaeological site and do not warrant additional documentation.

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Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona

Prepared for

Town of Wickenburg

For submittal to

Federal Aviation Administration

Prepared by

SWCA Environmental Consultants

February 2010

**ARCHAEOLOGICAL SURVEY OF THE WICKENBURG MUNICIPAL
AIRPORT MIDFIELD APRON PROJECT IN
MARICOPA COUNTY, ARIZONA**

Prepared for

Town of Wickenburg
155 North Tegner, Suite A
Wickenburg, Arizona 85390
(928) 684-5451
Attn: Gary Edwards

For submittal to

**Federal Aviation Administration
Western-Pacific Region**
Airports District Office, AWP-600.2
15000 Aviation Boulevard
Lawndale, California 90261
Attn: Roxana Hernandez

SWCA Environmental Consultants
3033 North Central Avenue, Suite 145
Phoenix, Arizona 85012
(602) 274-3831
www.swca.com

Arizona Antiquities Act Blanket Permit No. 2010-27bl

SWCA Project No. 15840.01

SWCA Cultural Resources Report No. 10-0026

February 2010

PROJECT ABSTRACT

Report Title. Archaeological Survey of Wickenburg Municipal Airport Midfield Apron Project in Wickenburg, Maricopa County, Arizona

Report Date. February 2010

Agency Name. Federal Aviation Administration (FAA)

Permit Number. Arizona Antiquities Act Blanket Permit No. 2010-27bl

Land Ownership Status. Town of Wickenburg

Project Description. SWCA Environmental Consultants (SWCA) was contracted to perform a Class III archaeological survey of municipal land in Maricopa County, Arizona. This project, which is for the Wickenburg Municipal Airport, includes construction of an approximately 30,000-square-foot midfield aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport. The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road, which is located on the south side of the airport. The airport apron and access road will be located on airport property and are needed to replace transient and Wickenburg-based aircraft parking areas lost as a result of hangar development to the west of the project site. The FAA requires this survey for compliance with the National Environmental Policy Act. Furthermore, the project is subject to compliance with Section 106 of the National Historic Preservation Act.

Project Number. SWCA Project No. 15840.01; Arizona State Museum (ASM) Accession No. 2010-0026

Project Location. The project area is located in Section 8, Township 7 North, Range 5 West, Maricopa County, Arizona, Gila and Salt River Baseline and Meridian, U.S. Geological Survey Vulture Peak, Arizona, 7.5-minute quadrangle.

Number of Acres Surveyed. 13.4 acres

National Register of Historic Places (NRHP)-Eligible Sites. None

NRHP-Ineligible Sites. None

Recommendations. An archaeological survey of the project area resulted in the finding of no new sites and three isolated artifact occurrences (IOs). Two of the IOs are single pieces of lithic debitage, and one is an oval-shaped pile of native rocks. These findings are not considered significant cultural resources.

Archival research indicates that nine archaeological surveys have been conducted and five sites have been identified within a 1-mile radius of the project area. SWCA observed no new sites during survey efforts.

SWCA recommends that this project will have a finding of no historic properties. No further archaeological work is recommended for the project area. However, if previously undocumented buried cultural resources are identified during ground-disturbing activities, all work in the immediate vicinity of the discovery should stop until the find can be evaluated by a professional archaeologist.

INTRODUCTION

SWCA Environmental Consultants (SWCA) was contracted by Coffman Associates to conduct an archaeological survey lands owned by the Town of Wickenburg, Maricopa County, Arizona.

This project, which is for the Wickenburg Municipal Airport, includes construction of an approximately 30,000-square-foot midfield aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport. The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road, which is located on the south side of the airport. The airport apron and access road will be located on airport property and are needed to replace transient and Wickenburg-based aircraft parking areas lost as a result of hangar development to the west of the project site..

The project area is in Section 8, Township 7 North, Range 5 West in Wickenburg, Maricopa County, Gila and Salt River Baseline and Meridian, on the U.S. Geological Survey Vulture Creek, Arizona, 7.5-minute quadrangle (Figure 1).

No historic properties were identified as a result of this survey. However, three isolated occurrences (IOs) were recorded. No significant archaeological remains appear to be present in the project area. SWCA recommends that this project will have a finding of no historic properties. No further archaeological work is recommended for the project area.

ENVIRONMENTAL SETTING

The project area is located in the Arizona Upland subdivision of the Sonoran Desert biome. Vegetation consists of low woodland trees with shrubs and perennial succulents dominating the understory. The woodland trees include blue paloverde (*Parkinsonia florida*), mesquites (*Prosopis* spp.), and ironwood (*Olneya tesota*). Cholla (*Cylindropuntia* spp.), barrel cactus (*Ferocactus cylindraceus*), jojoba (*Simmondsia chinensis*), and creosotebush (*Larrea tridentata*) are also found in this biome. Wildlife typical of the paloverde-cacti-mixed scrub series includes a wide variety of birds, desert mule deer (*Odocoileus hemionus crooki*), black-tailed jackrabbit (*Lepus californicus*), javelina (*Dicotyles tajacu*), gray fox (*Urocyon cinereoargenteus*), and small reptiles (Brown 1994). Vegetation identified within the project area includes saguaro cacti (*Carnegiea gigantean*), mesquite, and ephedra (*Ephedra* sp.). Fauna such as jackrabbit, various birds, and small reptiles were noted during the pedestrian survey.

Wickenburg can be found at the northern edge of the Basin and Range physiographic province. It is at the northwestern edge of the Vulture Mountains, which are composed of Precambrian and late Cretaceous era granites surrounded by Tertiary volcanic rock (Chronic 1998). The Hassayampa River flows through the heart of town, just east of the airport, before continuing along its 100-mile course. Elevations in the project area range between 2,200 and 2,400 feet above mean sea level.

CULTURE HISTORY

The earliest documented human occupation of the Southwest occurred during the Paleoindian period, which ended ca. 9000–10,000 B.C. (McGregor 1965; McGuire and Schiffer 1982). Evidence of this culture in western Arizona is scant, however, and consists of isolated Paleoindian projectile points.

The Archaic period followed the Paleoindian culture and is somewhat better documented, especially in its later stages. Dates for the Archaic period are not well defined but have a beginning range of ca. 7000–9000 B.C. Terminating dates are equally variable and are generally tied to the beginning of ceramic production and agriculture around the beginning of the first millennium A.D.

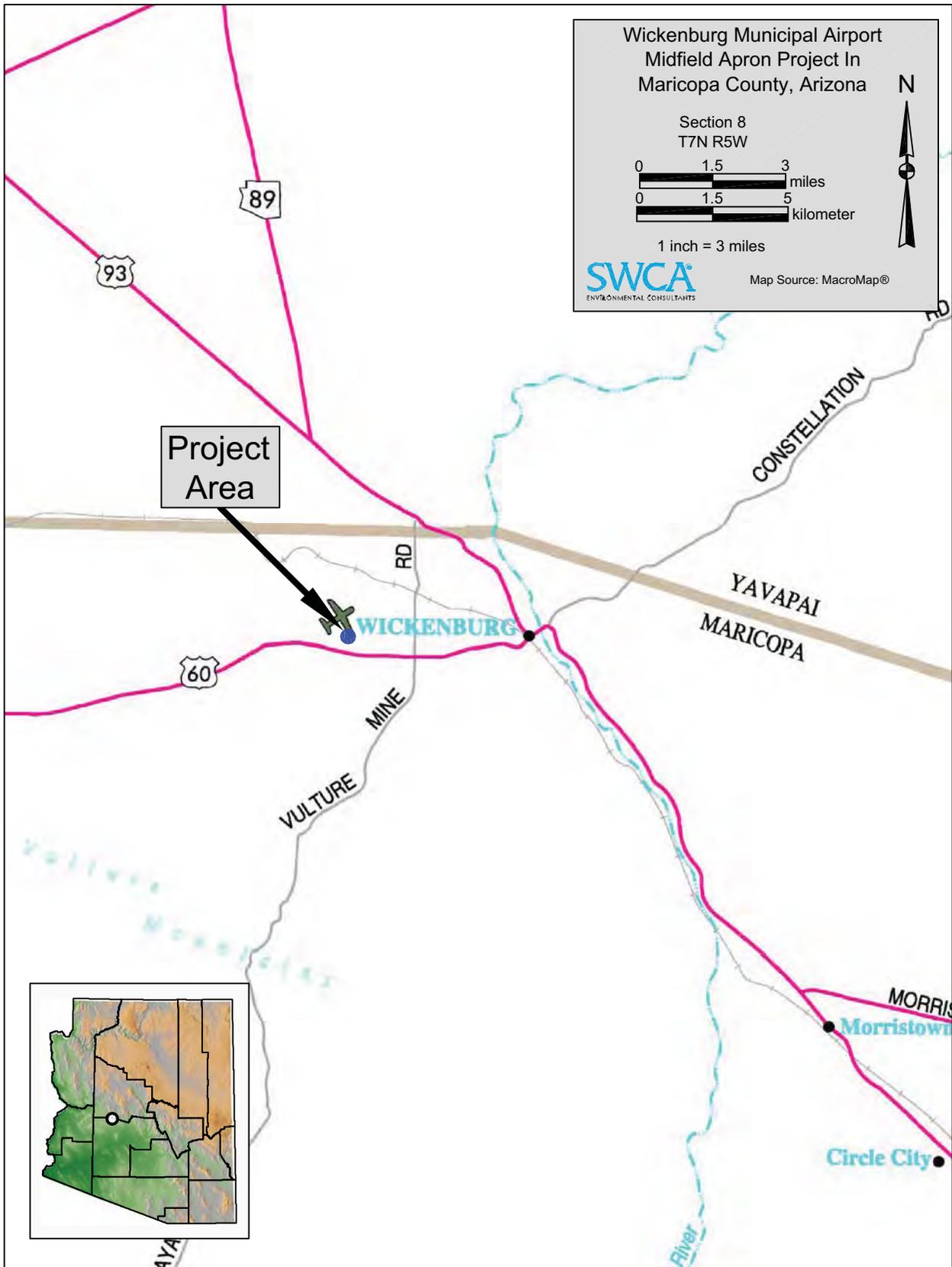


Figure 1. General location of the project area.

The Archaic in this area is generally referred to as the Desert culture. The earliest manifestation of this culture has been described as the San Dieguito culture, which is characterized by the presence of crude choppers and cleared circles in the desert pavement (see Rogers 1939). Later Archaic groups have been referred to as Amargosa and Pinto-Gypsum cultures, which are characterized by milling stones, manos, metates, and projectile point styles such as Gypsum, Elko series, Pinto, and others.

The advent of agriculture and pottery brought about cultural changes that can be seen in their early form with the rise of the Hohokam culture after the first century A.D. Although centered in the lower basin areas that are now known as Phoenix and Tucson, the Hohokam are theorized to have established colonies in peripheral areas (Reid and Whittlesey 1997:74). These satellite communities had more interaction with other cultural groups, such as the Sinagua, than did the Hohokam in the core areas; this interaction is reflected in the cultural materials found at these peripheral sites. The location of the project area—north of Phoenix but south and west of Mogollon rim—puts it in a transitional area between cultural groups. Along with Hohokam and Sinagua cultural use, there is evidence of Patayan influence extending into the region as well (Reid and Whittlesey 1997:7).

During the protohistoric era, the Apache began to occupy the landscape and interact with the descendants of these prehistoric people, the Yavapai. The Apache practices of reworking prehistoric tools and constructing temporary structures make the range of Apache difficult to assess, although their presence is not in doubt (Reid and Whittlesey 1997:233). In the sixteenth century, Spanish explorers began arriving from Mexico; however, intensive efforts to settle in Arizona did not begin until the eighteenth and nineteenth centuries. The Apache resisted Euro-American expansion until they were subdued in the 1870s. The Yavapai, who were also resisting attempts at colonization, were defeated in the 1870s and removed to reservations.

Mining played a major role in the early development of the town of Wickenburg. Henry Wickenburg's gold strike at the Vulture Mine brought a flood of fortune seekers that would develop the town that bears his name. The town's location along the banks of the Hassayampa River allowed for milling and transportation of the mineral resources while providing easy access to the necessary supplies for the new town to develop. By 1870, Wickenburg was one of the largest communities in Arizona (Trimble 1998:433–435).

Wickenburg is also known for the terrible massacre that occurred there in 1871. A stage coach transporting eight passengers was ambushed outside Wickenburg, and there were only two survivors. One of the passengers killed was an author from Boston who was of relative fame at that time. The two surviving passengers were unable to identify the assailants, and the culprits were never prosecuted; however, there were many fantastic theories circulating at the time (Trimble 1998:436–437). The town of Wickenburg has erected a historical marker to commemorate this event along U.S. Highway 60.

In the 1920s, the town focused its attention towards ranching. The “dude ranch” became a popular tourist destination, allowing unskilled visitors to work alongside cowboys as they attended to the daily needs of a working cattle ranch. Wickenburg touted itself the “dude ranch capital of the world,” and during World War II many ranches in the area were prospering from this type of tourism (Trimble 1998:438). Eventually, this type of vacation destination lost its popularity, but at least one ranch still operates in this capacity in Wickenburg.

PREVIOUS RESEARCH

Before fieldwork, archaeological records were checked at the Arizona State Historic Preservation Office (SHPO) and at the Arizona State Museum (ASM) to determine the location of any previous archaeological work or recorded archaeological sites in and around the project area. SWCA also consulted the AZSITE database, which includes records from the Arizona State Museum (ASM), Arizona

State University, and the Bureau of Land Management, for previously conducted surveys and previously recorded sites in the project area and within a 1-mile radius of the project area (*SHPO Standards for Conducting and Reporting Cultural Resource Surveys on State Lands IV.E.4.b*) (Figure 2). The Arizona State and National Registers of Historic Places were also consulted for listed properties or districts within a 1-mile radius of the project area.

An archaeological records search of the project area and of a 1-mile radius of the project area indicates that nine archaeological surveys have been conducted within 1 mile of the project area (Table 1). No new archaeological sites have been documented in the project area. Five sites have been identified within a 1-mile radius of the project area (Table 2).

No historic properties listed in the State or National Registers of Historic Places occur within the project area. However, one historic property, AZ T:1:14(ASM), is documented to the southeast of the project area (see Figure 2). AZ T:1:14(ASM) is reported to be nine segments of historic U.S. Highway 60. The AZSITE database indicates the site is considered eligible for listing in the National Register of Historic Places (NRHP).

Table 1. Previously Conducted Archaeological Surveys within a 1-Mile Radius of the Project Area

Agency Number	Site Investigated	Report Reference
1988-12.ASM	None	Bayman (1988)
1993-370.ASM	AZ T:1:9–12(ASM)	Hohmann and White (1993)
1995-213.ASM	AZ T:1:14(ASM)	Stone (1995)
1999-46.ASM	None	No title given
2000-303.ASM	None	Crownover (2000)
2000-395.ASM	None	Punzmann (2000)
2003-1099.ASM	None	Lonardo (2003)
2003-1109.ASM	None	Brown (2001)
2008-31.ASM	None	Christenson (2008)

Table 2. Previously Recorded Archaeological Sites within a 1-Mile Radius of the Project Area

Site Number	Site Description	NRHP Eligibility*
AZ T:1:9(ASM)	Historical trash scatter consisting of milk cans, glass, and a rock ring.	Unknown
AZ T:1:10(ASM)	Historical trash scatter consisting of cans and glass topped with an earthen mound.	Unknown
AZ T:1:11(ASM)	Historical burial outlined with white quartz cobbles and covered in white rocks. Date of burial and person interred are unknown.	Unknown
AZ T:1:12(ASM)	Historic wagon road with partial rock retaining wall.	Unknown
AZ T:1:14(ASM)	Nine segments of historic U.S. Highway 60.	Determined Eligible

* Data were obtained from AZSITE and may represent SHPO determinations or recorder recommendations

Exact location of identified resources is not disclosed to protect resource integrity.

GENERAL LAND OFFICE MAP RESEARCH

General Land Office (GLO) plat maps for Section 8, Township 7 North, Range 5 West were examined; however, no resources are depicted on the 1872 or 1947 GLO maps of the project area.

PROJECT METHODS

SWCA archaeologist Annmarie Kmetz surveyed the project area on January 13, 2010. General conditions for the survey were good, and ground visibility was generally 85 to 90 percent. The survey was conducted using standard archaeological techniques following ASM guidelines for survey coverage and site recording methodologies. The entire project area was covered by having archaeologists walk parallel transects spaced no more than 20 m (66 feet) apart. Evidence for cultural resources was sought in the form of artifacts (e.g., ceramics, lithics, historical metals, or glass) or features (concentrations of fire-cracked rock, charcoal-stained soil, prehistoric or historic structures, or other cultural anomalies). The archaeologist surveyed 13.4 acres.

PROJECT RESULTS

The survey of the project area resulted in the identification of three IOs and no new sites (Figure 3). The IOs consisted of two pieces of lithic debitage and one oval rock pile in the area to the northwest of the fence line. IOs are not considered significant cultural resources and do not provide diagnostic information allowing for further analysis.

Moderate amounts of modern debris in the form of plastic, bottle glass, wire pieces, and disposable food containers were noted during the survey. Figure 3 provides an overview of the present condition of the project area.



Figure 3. Overview of project area, facing southwest.

Isolated Occurrences

Three IOs of artifacts were recorded during survey of the project area (Table 3). Observed IOs consisted of two flaked stone assemblages and one rock pile with no associated cultural materials.

Table 3. Isolated Occurrences

IO No.	IO Description	Easting*	Northing*
01	Rhyolite primary flake	██████	██████
02	Chalcedony tertiary flake	██████	██████
03	Rock pile: 1.4 (N-S) × 1 (E-W) m, oval, about 30 rocks of local material	██████	██████

*Universal Transverse Mercator (UTM) coordinates (North American Datum [NAD] 1927), Zone 12.

SUMMARY AND MANAGEMENT RECOMMENDATIONS

An archaeological survey of the project area resulted in the identification of no new sites and three IOs. All three IOs were located in the area northwest of the fence line.

Archival research indicates nine cultural resource surveys have been carried out within a 1-mile radius of the project area. These surveys identified five sites. None of the sites are within the project boundary. No new sites were located by SWCA during survey efforts.

SWCA recommends that this project will have a finding of no historic properties. As no new cultural resources were identified during survey efforts and no known sites exist within the project boundaries, no further archaeological work is recommended for the project area. However, if previously undocumented buried cultural resources are identified during ground-disturbing activities, all work in the immediate vicinity of the discovery should stop until the find can be evaluated by a professional archaeologist.

REFERENCES CITED

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1988 *Letter Report 54-95031*. Arizona State Museum, University of Arizona, Tucson.

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1994 *Biotic Communities, Southwestern United States and Northwestern Mexico*. University of Utah Press, Salt Lake City.

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1993 *A Phase I Archaeological Reconnaissance on the Flying E Ranch near Wickenburg, Maricopa County, Arizona*. CRGCR No. 28. Louis Berger and Associates.

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2000 *A Cultural Resources Assessment for the Proposed Wickenburg Airport Expansion, Wickenburg, Maricopa County, Arizona*. Archaeological Consulting Services, Ltd., Tucson.

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1997 *The Archaeology of Ancient Arizona*. University of Arizona Press, Tucson.

Rogers, Malcolm J.

1939 *Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Areas*. Museum Papers No. 3. Museum of Man, San Diego.

Stone, Bradford W.

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Trimble, Marshall

1998 *Roadside History of Arizona.* Mountain Press Publishing Company, Missoula.



U.S Department
of Transportation

**Federal Aviation
Administration**

Western-Pacific Region
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009-2007

April 7, 2010

Mr. David Jacobs
State Historic Preservation Office
1300 W. Washington
Phoenix, AZ 85007

Dear Mr. Jacobs:

Wickenburg Municipal Airport
Wickenburg, Arizona
Section 106 Consultation

The Federal Aviation Administration (FAA) and the Town of Wickenburg are preparing environmental documentation and are providing federal funding assistance for the proposed project to construct approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and an associated access road at Wickenburg Municipal Airport. The airport is owned and operated as a public use airport by the Town of Wickenburg (Exhibit A). The FAA is the lead federal agency thereby charged with conducting Section 106 consultation with the State Historic Preservation Office.

Consultation Initiation

In an effort to ensure compliance with Code of Federal Regulation (CFR) 36 Part 800, Protection of Historic Properties as amended, the potential effects of the proposed project on cultural, historical or archaeological resources. The proposed project includes construction of an approximately 30,000-square-foot midfield aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport (Exhibit B). The enclosed Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona, dated February 2010 provides information and comparative analyses to determine if the proposed action would result in potentially significant adverse effects to cultural, historical or archaeological resources (Enclosure). The FAA is initiating Section 106 consultation with your office, effective by the date of this letter. The purpose of this consultation effort is to seek concurrence that there are no historic architectural, archeological or cultural resources impacts of the proposed project that occur or are likely to occur in the vicinity of the project site.

Project Information

The proposed undertaking will allow for proposed project to construct an approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport (Exhibit C). The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road located on the south side of the airport. The access road will be equipped with a security gate to restrict access to only those with permission to enter the south side hangar and apron areas. The airport apron and access road will be located on airport property and are need to replace transient and based aircraft parking areas that were lost as a result of hangar development to the west of the project site.

Anticipated environmental impacts resulting from the proposed mid-field apron project relate primarily to the relocation and channelization of a wash located within the project site. The location of the wash and the proposed realignment are depicted on Exhibit C. The proposed parking apron will meet the needs of existing and forecast future airport users, as described in the Wickenburg Municipal Airport Master Plan, 2002.

Project Consultation

The FAA has determined that the Area of Potential Effect (APE) is identified within the area outlined in blue in the attached enclosed Archaeological Survey report, figure 2, and page 5. The APE includes the proposed project that is for the construction of approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road. The APE has had some disturbance by road access, grading, airport improvements and the proposed project would not affect any documented historic or prehistoric resources onsite or in the project area.

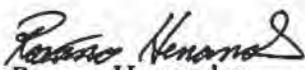
SWCA Environmental Consultants (SWCA) conducted field investigation for archaeological resources in January 2010. The records search conducted as part of the archaeological survey indicates that nine archaeological surveys have been conducted and five sites have been identified within a one-mile radius of the project area. None of the previously recorded sites are located within the proposed project site. SWCA observed no new sites during survey efforts. The survey report indicates that three isolated occurrences were identified within the proposed project site. Two of the isolated occurrences are identified as single pieces of lithic debitage and one is an oval-shaped pile of native rocks. Isolated occurrences do not meet the Arizona State Museum definition of archaeological site and do not warrant additional documentation.

In accordance with 36 CFR 800, the FAA has determined that the proposed undertaking for the proposed improvements at Wickenburg Municipal Airport, will not affect any prehistoric, historic, archaeological, or cultural resources. We request your written concurrence with the APE and our determination of no effect. Please provide your written response within thirty (30) days, or we will presume you have no comments regarding the proposed undertaking.

FAA Contact Information

If needed, the FAA and Airport staff are available to meet to discuss this Section 106 consultation. If you have any additional questions concerning this matter, please feel free to contact me at (310) 725-3614, or by e-mail at Roxana.Hernandez@faa.gov.

Sincerely,



Roxana Hernandez
Environmental Protection Specialist

Enclosure: Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project

Exhibits: A, Vicinity Map
B, Airport Facilities
C, Proposed Action



U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009-2007

SHPO-2010-0177 (71978)

600.2

April 7, 2010

Mr. David Jacobs
State Historic Preservation Office
1300 W. Washington
Phoenix, AZ 85007

RECEIVED

APR 09 2010
ARIZONA STATE PARKS/S.H.P.

Dear Mr. Jacobs:

Wickenburg Municipal Airport
Wickenburg, Arizona
Section 106 Consultation

The Federal Aviation Administration (FAA) and the Town of Wickenburg are preparing environmental documentation and are providing federal funding assistance for the proposed project to construct approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and an associated access road at Wickenburg Municipal Airport. The airport is owned and operated as a public use airport by the Town of Wickenburg (Exhibit A). The FAA is the lead federal agency thereby charged with conducting Section 106 consultation with the State Historic Preservation Office.

hand

Consultation Initiation

In an effort to ensure compliance with Code of Federal Regulation (CFR) 36 Part 800, Protection of Historic Properties as amended, the potential effects of the proposed project on cultural, historical or archaeological resources. The proposed project includes construction of an approximately 30,000-square-foot midfield aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport (Exhibit B). The enclosed Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project in Maricopa County, Arizona, dated February 2010 provides information and comparative analyses to determine if the proposed action would result in potentially significant adverse effects to cultural, historical or archaeological resources (Enclosure). The FAA is initiating Section 106 consultation with your office, effective by the date of this letter. The purpose of this consultation effort is to seek concurrence that there are no historic architectural, archeological or cultural resources impacts of the proposed project that occur or are likely to occur in the vicinity of the project site.

Project Information

The proposed undertaking will allow for proposed project to construct an approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road at Wickenburg Municipal Airport (Exhibit C). The proposed aircraft parking apron will have landside vehicle access provided by an extension of the existing access road located on the south side of the airport. The access road will be equipped with a security gate to restrict access to only those with permission to enter the south side hangar and apron areas. The airport apron and access road will be located on airport property and are need to replace transient and based aircraft parking areas that were lost as a result of hangar development to the west of the project site.

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Anticipated environmental impacts resulting from the proposed mid-field apron project relate primarily to the relocation and channelization of a wash located within the project site. The location of the wash and the proposed realignment are depicted on Exhibit C. The proposed parking apron will meet the needs of existing and forecast future airport users, as described in the Wickenburg Municipal Airport Master Plan, 2002.

Project Consultation

The FAA has determined that the Area of Potential Effect (APE) is identified within the area outlined in blue in the attached enclosed Archaeological Survey report, figure 2, and page 5. The APE includes the proposed project that is for the construction of approximately 30,000 square foot mid-field aircraft parking apron on the south side of Runway 5-23 and associated access road. The APE has had some disturbance by road access, grading, airport improvements and the proposed project would not affect any documented historic or prehistoric resources onsite or in the project area.

SWCA Environmental Consultants (SWCA) conducted field investigation for archaeological resources in January 2010. The records search conducted as part of the archaeological survey indicates that nine archaeological surveys have been conducted and five sites have been identified within a one-mile radius of the project area. None of the previously recorded sites are located within the proposed project site. SWCA observed no new sites during survey efforts. The survey report indicates that three isolated occurrences were identified within the proposed project site. Two of the isolated occurrences are identified as single pieces of lithic debitage and one is an oval-shaped pile of native rocks. Isolated occurrences do not meet the Arizona State Museum definition of archaeological site and do not warrant additional documentation.

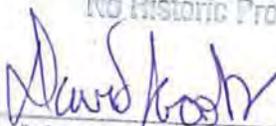
In accordance with 36 CFR 800, the FAA has determined that the proposed undertaking for the proposed improvements at Wickenburg Municipal Airport, will not affect any prehistoric, historic, archaeological, or cultural resources. We request your written concurrence with the APE and our determination of no effect. Please provide your written response within thirty (30) days, or we will presume you have no comments regarding the proposed undertaking.

FAA Contact Information

If needed, the FAA and Airport staff are available to meet to discuss this Section 106 consultation. If you have any additional questions concerning this matter, please feel free to contact me at (310) 725-3614, or by e-mail at Roxana.Hernandez@faa.gov.

Sincerely,


Roxana Hernandez
Environmental Protection Specialist

No Historic Properties Affected
 15 APRIL 10
Arizona State Historic Preservation Office
Arizona State Parks Board

Enclosure: Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project

Exhibits: A, Vicinity Map
B, Airport Facilities
C, Proposed Action

NATIVE AMERICAN TRIBES

The letter dated April 27, 2010 on page 7 was sent to the following Tribes.

Mr. Louis Manuel Jr.
Chairman
Ak-Chin Indian Community Council
42507 West Peters & Nall Rd
Maricopa, AZ 85238

Mr. Wendsler Nosie
Chairman
San Carlos Apache Tribe
P.O. Box 0
San Carlos, AZ 85550

Dr. Clinton Pattea
President
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85268

Mr. Ned Norris Jr.
Chairman
Tohono O'odham Nation
P.O. Box 837
Sells, AZ 85634

Mr. William Roy Rhodes
Governor
Gila River Indian Community
P.O. Box 97
Sacaton, AZ 85247

Mr. Ronnie Lupe
Chairman
White Mountain Apache Tribal Council
P.O. Box 700
Whiteriver, AZ 85941

Ms. Diane Enos
President
Salt River Pima-Maricopa Indian
Community Council
10005 E. Osborn Road
Scottsdale, AZ 85256

Mr. Thomas Beauty
Chairman
Yavapai-Apache Nation
2400 W. Datsi
Camp Verde, AZ 86322



U.S. Department
of Transportation

Federal Aviation
Administration

Western-Pacific Region
Airports Division

P.O. Box 92007
Los Angeles, CA 90009-2007

April 27, 2010

Mr. Thomas Beauty
Chairman
Yavapai-Apache Nation
2400 W. Datsi
Camp Verde, AZ 86322

Dear Chairman Beauty:

**Wickenburg Municipal Airport
Midfield Aircraft Parking Apron Draft Environmental Assessment (EA)
Wickenburg, Arizona
Government-to-Government Communication Initiation**

The Federal Aviation Administration (FAA) and the Town of Wickenburg are preparing an Environmental Assessment for a proposed project to construct an approximate 30,000 square foot midfield aircraft parking apron on the south side of Runway 5-23 and an associated access road at Wickenburg Municipal Airport (Exhibits A-C). The airport is owned and operated as a public use airport by the Town of Wickenburg. The FAA is the lead federal agency for consultation with the Yavapai-Apache Nation.

Purpose of Government-to-Government Consultation

The primary purpose of government-to-government consultation as described in Federal Executive Order 13175 "Consultation and Coordination with Indian Tribal Governments" and FAA's Order 1210.20 "American Indian and Alaska Native Tribal Consultation Policy and Procedures" is to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes.

Consultation Initiation

In order to fulfill our requirement with Title 36, Code of Federal Regulation (CFR) Part 800, we are contacting you as part of the environmental review process. With this letter, the FAA is seeking input on any concerns that uniquely or significantly affect your Tribe that maybe related to the proposed airport improvements. Early identification of Tribal concerns will allow the FAA and the airport owner and operator to consider ways to avoid and minimize potential impacts to Tribal resources and practices as project planning and alternatives are developed and refined. We would be pleased to discuss details of the proposed project.

Project Information

The FAA has determined that the Area of Potential Effect (APE) is identified within the "Project Area" as shown in the enclosed Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project, Figure 2, page 5. The APE includes the proposed project for the construction of approximately 30,000 square foot midfield aircraft parking apron and associated access road. The APE has had prior disturbance by road access, grading, and other airport improvements.

The enclosed Archaeological Survey report provides information and comparative analyses to determine if the proposed action would result in potentially significant adverse effects to cultural, historical or archaeological resources. SWCA Environmental Consultants (SWCA) conducted field investigation for archaeological resources in January 2010. The records search conducted as part of the archaeological survey indicates that nine archaeological surveys have been conducted and five sites have been identified within a one-mile radius of the project area. None of the previously recorded sites are located within the proposed project site. SWCA observed no new sites during survey efforts. The survey report indicates that three isolated occurrences were identified within the proposed project site. Two of the isolated occurrences are identified as single pieces of lithic debitage and one is an oval-shaped pile of native rocks. Isolated occurrences do not meet the Arizona State Museum definition of archaeological site and do not warrant additional documentation.

Confidentiality

We understand that you may have concerns regarding the confidentiality of information on areas or resources of religious, traditional and cultural importance to the Tribe. We would be pleased to discuss these concerns and develop procedures to ensure the confidentiality of such information is maintained.

Airport Owner and Operator Contact Information

In addition, you may wish to include the Airport owner and operator (Town of Wickenburg) in your response so that they may be aware of your comments. The Airport owner and operator's point of contact for this project is:

Mr. Gary Edwards
Town Manager
155 North Tegner, Suite A
Wickenburg, AZ 85390-3427
(928) 684-5451

Project Consultation

Your timely response will greatly assist us in incorporating your concerns into the project planning. For that purpose, we respectfully request that you provide comments or you may respond by completing the enclosed Tribal Consultation Options form and return it to the FAA within thirty (30) days of your receipt of this correspondence.

FAA Contact Information

If you wish to provide comments related to this proposed project, please contact Roxana Hernandez, Environmental Protection Specialist, at the address provide on the Tribal Consultation Options Form, at (310) 725-3614, or by e-mail at Roxana.Hernandez@faa.gov; or please feel free to contact me directly at (310) 725-3644.

Sincerely,



Brian Q. Armstrong
Acting Manager, Airports Division

Enclosures: Tribal Consultation Options Form
Exhibit A - Vicinity Map
Exhibit B - Airport Facilities
Exhibit C - Proposed Action
Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project

Tribal Consultation Options

Mr. Thomas Beauty
Chairman
Yavapai-Apache Nation
2400 W. Datsi
Camp Verde, AZ 86322

Project Name: Midfield aircraft parking apron and access road, Draft Environmental Assessment (EA)

Please check the appropriate response:

_____ The Yavapai-Apache Nation, will continue coordination for this proposed project directly with Owner / Operator of the airport. Please note that if the Tribe initially chooses to consult / coordinate with the airport owner/operator, the Tribe may later decide to consult directly with the FAA.

_____ The Yavapai-Apache Nation, a federally recognized tribe, would like to consult directly with the FAA in a government-to-government relationship for this proposed project.

_____ The Yavapai-Apache Nation, has no interest associated with this proposed project and further consultation is not required.

Use additional sheets if you would like to make comments.

Tribal Leader (Please print)

Telephone

Tribal Leader (Signature)

Date

Address:

Phone:

Fax:

E-mail:

Other: (please describe)

If you have chosen to proceed with consultation, please identify a Tribal Representative for the consultation.

Name of Formal Tribal Representative (Please print)

Telephone

Name of Formal Tribal Representative (Signature)

Date

Please mail to: Federal Aviation Administration
Roxana Hernandez
Los Angeles Airports District Office
15000 Aviation Boulevard
Lawndale, CA 90261

or Fax to:
(310) 725-6849
Attention: Roxana Hernandez



U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division

P.O. Box 92007
Los Angeles, CA 90009-2007

April 27, 2010

Dr. Clinton Pattea
President
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85268

RECEIVED

MAY 04 2010

Presidents Office

Dear President Pattea:

**Wickenburg Municipal Airport
Midfield Aircraft Parking Apron Draft Environmental Assessment (EA)
Wickenburg, Arizona
Government-to-Government Communication Initiation**

The Federal Aviation Administration (FAA) and the Town of Wickenburg are preparing an Environmental Assessment for a proposed project to construct an approximate 30,000 square foot midfield aircraft parking apron on the south side of Runway 5-23 and an associated access road at Wickenburg Municipal Airport (Exhibits A-C). The airport is owned and operated as a public use airport by the Town of Wickenburg. The FAA is the lead federal agency for consultation with the Fort McDowell Yavapai Nation.

Purpose of Government-to-Government Consultation

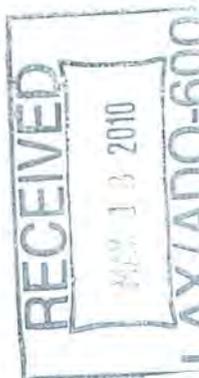
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Town Manager
155 North Tegner, Suite A
Wickenburg, AZ 85390-3427
(928) 684-5451

Project Consultation

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Sincerely,



Brian Q. Armstrong
Acting Manager, Airports Division

Enclosures: Tribal Consultation Options Form
Exhibit A - Vicinity Map
Exhibit B - Airport Facilities
Exhibit C - Proposed Action
Archaeological Survey of the Wickenburg Municipal Airport Midfield Apron Project

Tribal Consultation Options

Dr. Clinton Pattea
President
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85268

Project Name: Midfield aircraft parking apron and access road, Draft Environmental Assessment (EA)

Please check the appropriate response:

_____ The Fort McDowell Yavapai Nation, will continue coordination for this proposed project directly with Owner / Operator of the airport. Please note that if the Tribe initially chooses to consult / coordinate with the airport owner/operator, the Tribe may later decide to consult directly with the FAA.

_____ The Fort McDowell Yavapai Nation, a federally recognized tribe, would like to consult directly with the FAA in a government-to-government relationship for this proposed project.

The Fort McDowell Yavapai Nation, has no interest associated with this proposed project and further consultation is not required.

Use additional sheets if you would like to make comments.

Dr. Clinton M. Pattea
Tribal Leader (Please print)

Telephone

Dr. Clinton M. Pattea
Tribal Leader (Signature)

5-6-10
Date

Address:

Phone:

Fax:

E-mail:

Other: (please describe)

If you have chosen to proceed with consultation, please identify a Tribal Representative for the consultation.

Name of Formal Tribal Representative (Please print)

Telephone

Name of Formal Tribal Representative (Signature)

Date

Please mail to: Federal Aviation Administration
Roxana Hernandez
Los Angeles Airports District Office
15000 Aviation Boulevard
Lawndale, CA 90261

or Fax to:
(310) 725-6849
Attention: Roxana Hernandez



Appendix G

EMMISSION INVENTORY SUMMARY

Appendix G

EMISSIONS INVENTORY SUMMARY

This appendix includes the summary tables from the NONROAD and MOBILE6.2 emissions models resulting from the air quality analysis prepared as part of this Environmental Assessment.

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Emission Totals by Equipment Type and Pollutant

Diesel Tons/Day

Wickenburg Mid Field Apron
2011 (wickenburg)

Typical weekday for July, 2011

Date of Model Run: Mar 11 14:52:26: 2010

Today's Date: 3/11/2010

Maricopa County

Source Classification	Equipment Description	Exhaust VOC	Exhaust NOx	Exhaust CO	Exhaust PM25	Exhaust SO2	Exhaust CO2	Crankcase VOC	Diurnal VOC
CONSTRUCTION AND MINING EQUIPMENT									
	Bore/Drill Rigs	0.07	0.90	0.31	0.05	0.02	83.66	0.00	0.00
	Cement & Mortar Mixers	0.00	0.04	0.02	0.00	0.00	3.26	0.00	0.00
	Concrete/Industrial Saws	0.01	0.05	0.04	0.01	0.00	6.88	0.00	0.00
	Cranes	0.10	1.49	0.39	0.08	0.04	189.66	0.00	0.00
	Crawler Tractor/Dozers	0.40	5.85	2.54	0.41	0.17	827.60	0.01	0.00
	Crushing/Proc. Equipment	0.02	0.28	0.10	0.02	0.01	33.55	0.00	0.00
	Dumpers/Tenders	0.00	0.01	0.01	0.00	0.00	1.16	0.00	0.00
	Excavators	0.39	5.16	2.26	0.42	0.17	830.93	0.01	0.00
	Graders	0.10	1.28	0.49	0.10	0.04	206.78	0.00	0.00
	Off-Highway Tractors	0.05	0.77	0.34	0.04	0.02	89.07	0.00	0.00
	Off-highway Trucks	0.30	5.09	1.83	0.29	0.15	710.61	0.01	0.00
	Other Construction Equipment	0.05	0.75	0.36	0.05	0.02	85.26	0.00	0.00
	Pavers	0.04	0.56	0.27	0.05	0.02	81.88	0.00	0.00
	Paving Equipment	0.01	0.09	0.05	0.01	0.00	12.30	0.00	0.00
	Plate Compactors	0.00	0.02	0.02	0.00	0.00	2.20	0.00	0.00
	Rollers	0.12	1.49	0.81	0.13	0.04	204.99	0.00	0.00
	Rough Terrain Forklifts	0.18	2.02	1.33	0.21	0.06	265.92	0.00	0.00
	Rubber Tire Loaders	0.48	6.98	2.92	0.48	0.19	904.36	0.01	0.00

Emission Totals by Equipment Type and Pollutant

Diesel

Tons/Day

Maricopa County

Wickenburg Mid Field Apron
2011 (wickenburg)

Typical weekday for July, 2011

Date of Model Run: Mar 11 14:52:26: 2010

Today's Date: 3/11/2010

Source Classification	Equipment Description	Vapor Displacement VOC	Spillage VOC	Hot Soak VOC	Running Loss VOC	Tank Permeation VOC	Hose Permeation VOC	Total VOC
CONSTRUCTION AND MINING EQUIPMENT								
	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	Cement & Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	Crawler Tractor/Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.40
	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	Dumpers/Tenders	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.39
	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.10
	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	Off-highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.30
	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.05
	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.12
	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.18
	Rubber Tire Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.49

Source Classification	Equipment Description	Exhaust VOC	Exhaust NOx	Exhaust CO	Exhaust PM25	Exhaust SO2	Exhaust CO2	Crankcase VOC	Diurnal VOC
	Scrapers	0.09	1.56	0.70	0.10	0.05	222.95	0.00	0.00
	Signal Boards/Light Plants	0.02	0.20	0.10	0.02	0.00	22.64	0.00	0.00
	Skid Steer Loaders	0.87	3.43	4.02	0.61	0.08	375.62	0.02	0.00
	Surfacing Equipment	0.01	0.07	0.04	0.01	0.00	7.60	0.00	0.00
	Tampers/Rammers	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
	Tractors/Loaders/Backhoes	0.99	4.96	4.80	0.75	0.12	547.99	0.02	0.00
	Trenchers	0.07	0.77	0.49	0.07	0.02	97.16	0.00	0.00
	Construction and Mining Equipment Totals:	4.37	43.80	24.23	3.92	1.23	5,814.17	0.08	0.00
	Grand Totals:	4.37	43.80	24.23	3.92	1.23	5,814.17	0.08	0.00

Source Classification	Equipment Description	Vapor Displacement VOC	Spillage VOC	Hot Soak VOC	Running Loss VOC	Tank Permeation VOC	Hose Permeation VOC	Total VOC
	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.09
	Signal Boards/Light Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.89
	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	Tampers/Rammers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	1.01
	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.07
	Construction and Mining Equipment Totals:	0.00	0.00	0.00	0.00	0.00	0.00	4.45
	Grand Totals:	0.00	0.00	0.00	0.00	0.00	0.00	4.45

E25.TXT

 * MOBILE6.2.03 (24-Sep-2003) *
 * Input file: E2525.IN (file 1, run 1). *

Calendar Year: 2011
 Month: July
 Altitude: Low
 Minimum Temperature: 83.0 (F)
 Maximum Temperature: 106.0 (F)
 Absolute Humidity: 115. grains/lb
 Nominal Fuel RVP: 9.0 psi
 Weathered RVP: 8.2 psi
 Fuel Sulfur Content: 30. ppm
 Exhaust I/M Program: Yes
 Evap I/M Program: No
 ATP Program: Yes
 Reformulated Gas: No

Ether Blend Market Share: 0.500 Alcohol Blend Market Share: 0.500
 Ether Blend Oxygen Content: 0.020 Alcohol Blend Oxygen Content: 0.010
 Alcohol Blend RVP Waiver: No

LDDT	Vehi cle Type: HDDV	LDGV MC	LDGT12 All Veh	LDGT34	LDGT (All)	HDGV	LDDV
0.0033	0.0842	0.0050	1.0000	0.1313		0.0378	0.0019

 Composite Emission Factors (g/mi):
 Composite VOC : 0.555 0.694 1.444 0.885 1.833 0.474
 0.805 0.356 3.46 0.772
 Composite CO : 5.12 6.54 10.05 7.43 8.70 1.635
 1.482 1.458 20.05 6.195
 Composite NOX : 0.351 0.453 0.793 0.539 2.426 1.286
 1.022 5.651 0.87 0.979

 Exhaust emissions (g/mi):
 VOC Start: 0.063 0.102 0.200 0.127 0.177
 0.417 0.397
 VOC Runni ng: 0.060 0.107 0.221 0.136 0.297
 0.387 1.277
 VOC Total Exhaust: 0.122 0.209 0.421 0.263 0.232 0.474
 0.805 0.356 1.67 0.229
 CO Start: 1.42 2.18 3.41 2.49 0.771
 0.890 3.726
 CO Runni ng: 3.69 4.36 6.64 4.94 0.864
 0.593 16.327
 CO Total Exhaust: 5.12 6.54 10.05 7.43 8.70 1.635
 1.482 1.458 20.05 6.195
 NOx Start: 0.054 0.084 0.149 0.100 0.060
 0.084 0.279
 NOx Runni ng: 0.297 0.369 0.644 0.439 1.226

E25. TXT

0.938		0.591					
NOx Total Exhaust:		0.351	0.453	0.793	0.539	2.426	1.286
1.022	5.651	0.87	0.979				

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.121	0.152	0.326	0.197	0.482	0.000
0.000	0.000	0.637	0.165			
Diurnal Loss:	0.025	0.033	0.064	0.041	0.114	0.000
0.000	0.000	0.787	0.038			
Resting Loss:	0.054	0.069	0.153	0.091	0.222	0.000
0.000	0.000	0.363	0.076			
Running Loss:	0.220	0.200	0.426	0.258	0.629	0.000
0.000	0.000	0.000	0.234			
Crankcase Loss:	0.004	0.009	0.010	0.009	0.010	0.000
0.000	0.000	0.000	0.007			
Refueling Loss:	0.008	0.021	0.044	0.027	0.143	0.000
0.000	0.000	0.000	0.022			
Total Non-Exhaust:	0.432	0.485	1.023	0.627	1.601	0.000
0.000	0.000	1.787	0.543			

Veh. Type:	LDGT1	LDGT2	LDGT3	LDGT4	LDDT12	LDDT34
VMT Mix:	0.0886	0.2958	0.0908	0.0405	0.0016	0.0017

Composite Emission Factors (g/mi):

Composite VOC :	0.508	0.750	1.431	1.472	1.335	0.294
Composite CO :	5.09	6.98	9.98	10.22	2.447	0.555
Composite NOX :	0.321	0.492	0.718	0.961	1.541	0.523

Exhaust emissions (g/mi):

VOC Start:	0.075	0.110	0.195	0.212	0.763	0.084
VOC Running:	0.065	0.120	0.214	0.237	0.572	0.210
VOC Total Exhaust:	0.139	0.230	0.408	0.449	1.335	0.294
CO Start:	1.76	2.30	3.36	3.54	1.612	0.195
CO Running:	3.33	4.67	6.62	6.69	0.835	0.360
CO Total Exhaust:	5.09	6.98	9.98	10.22	2.447	0.555
NOx Start:	0.060	0.091	0.138	0.175	0.154	0.017
NOx Running:	0.261	0.401	0.581	0.786	1.388	0.505
NOx Total Exhaust:	0.321	0.492	0.718	0.961	1.541	0.523

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.124	0.161	0.326	0.326	0.000	0.000
Diurnal Loss:	0.025	0.036	0.064	0.064	0.000	0.000
Resting Loss:	0.059	0.073	0.153	0.153	0.000	0.000
Running Loss:	0.142	0.217	0.426	0.426	0.000	0.000
Crankcase Loss:	0.005	0.010	0.010	0.010	0.000	0.000
Refueling Loss:	0.013	0.024	0.044	0.044	0.000	0.000
Total Non-Exhaust:	0.368	0.520	1.023	1.023	0.000	0.000

Hdgv8A	Veh. Type:	HDGV2B	HDGV3	HDGV4	HDGV5	HDGV6	HDGV7
	HDGV8B						

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-----	-----						
0.0000	VMT Mi x: 0.0000	0.0292	0.0010	0.0009	0.0013	0.0029	0.0016

Composi te Emi ssi on Factors (g/mi):							
6.386	Composi te VOC :	1.426	2.888	3.519	2.284	2.690	4.023
17.00	0.000						
17.00	Composi te CO :	7.87	10.08	9.84	10.23	10.47	12.59
5.866	0.00						
5.866	Composi te NOX :	2.029	3.236	3.655	2.930	3.031	4.076
	0.000						

Exhaust emi ssi ons (g/mi):							
0.532	VOC Total Exhaust:	0.199	0.293	0.335	0.275	0.284	0.377
17.00	0.000						
17.00	CO Total Exhaust:	7.87	10.08	9.84	10.23	10.47	12.59
5.866	0.00						
5.866	NOx Total Exhaust:	2.029	3.236	3.655	2.930	3.031	4.076
	0.000						

Non-Exhaust Emi ssi ons (g/mi):							
2.224	Hot Soak Loss:	0.345	0.796	1.151	0.646	0.814	1.322
0.596	0.000						
1.187	Di urnal Loss:	0.079	0.157	0.287	0.172	0.210	0.330
1.517	0.000						
1.517	Resti ng Loss:	0.156	0.354	0.531	0.301	0.385	0.638
0.010	0.000						
0.010	Runni ng Loss:	0.533	1.043	0.967	0.606	0.715	1.048
0.010	0.000						
0.010	Crankcase Loss:	0.010	0.011	0.013	0.011	0.011	0.011
0.320	0.000						
0.320	Refueli ng Loss:	0.104	0.235	0.236	0.273	0.271	0.297
5.854	0.000						
5.854	Total Non-Exhaust:	1.228	2.595	3.184	2.010	2.406	3.646
	0.000						

HDDV8A	Veh. Type: HDDV8B	HDDV2B	HDDV3	HDDV4	HDDV5	HDDV6	HDDV7
-----	-----	-----	-----	-----	-----	-----	-----
0.0120	VMT Mi x: 0.0400	0.0108	0.0030	0.0021	0.0007	0.0051	0.0084

Composi te Emi ssi on Factors (g/mi):							
0.381	Composi te VOC :	0.131	0.145	0.169	0.175	0.259	0.330
1.506	0.457						
6.063	Composi te CO :	0.465	0.499	0.539	0.471	0.705	0.935
	2.040						
6.063	Composi te NOX :	1.756	1.837	2.101	1.932	3.389	4.490
	7.494						

Exhaust emi ssi ons (g/mi):							
0.381	VOC Total Exhaust:	0.131	0.145	0.169	0.175	0.259	0.330
1.506	0.457						
1.506	CO Total Exhaust:	0.465	0.499	0.539	0.471	0.705	0.935
	2.040						

			E25. TXT					
NOx Total Exhaust:	1.756	1.837	2.101	1.932	3.389	4.490		
6.063 7.494								

Non-Exhaust Emissions (g/mi):							
Hot Soak Loss:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							
Diurnal Loss:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							
Resting Loss:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							
Running Loss:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							
Crankcase Loss:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							
Refueling Loss:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							
Total Non-Exhaust:	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000 0.000							

Veh. Type:	GasBUS	URBAN	SCHOOL
VMT Mix:	0.0009	0.0010	0.0011

Composite Emission Factors (g/mi):			
Composite VOC :	4.980	0.282	0.414
Composite CO :	18.36	2.391	1.148
Composite NOX :	7.781	11.262	5.977

Exhaust emissions (g/mi):			
VOC Total Exhaust:	0.684	0.282	0.414
CO Total Exhaust:	18.36	2.391	1.148
NOx Total Exhaust:	7.781	11.262	5.977

Non-Exhaust Emissions (g/mi):			
Hot Soak Loss:	1.128	0.000	0.000
Diurnal Loss:	0.272	0.000	0.000
Resting Loss:	0.523	0.000	0.000
Running Loss:	2.019	0.000	0.000
Crankcase Loss:	0.012	0.000	0.000
Refueling Loss:	0.343	0.000	0.000
Total Non-Exhaust:	4.297	0.000	0.000

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 * MOBILE6. 2. 03 (24-Sep-2003) *
 * Input file: E2510.IN (file 1, run 1). *

Calendar Year: 2011
 Month: July
 Altitude: Low
 Minimum Temperature: 83.0 (F)
 Maximum Temperature: 106.0 (F)
 Absolute Humidity: 75. grains/lb
 Fuel Sulfur Content: 30. ppm
 Exhaust I/M Program: Yes
 Evap I/M Program: No
 ATP Program: Yes
 Reformulated Gas: Yes

LDDT	Vehicle Type: HDDV	LDGV MC	LDGT12 All Veh	LDGT34 >6000	LDGT (All)	HDGV	LDDV
0.0019	0.0859	0.0050	1.0000	0.1311		0.0361	0.0003

 Composite Emission Factors (g/mi):
 Composite VOC : 0.370 0.548 1.076 0.682 0.862 0.155
 0.386 0.373 2.23 0.559
 Composite CO : 4.42 5.76 8.63 6.49 6.79 0.870
 0.710 1.531 19.17 5.395
 Composite NOX : 0.397 0.520 0.893 0.614 1.983 0.342
 0.629 5.917 1.03 1.044

 Exhaust emissions (g/mi):
 VOC Start: 0.061 0.102 0.192 0.125 0.054
 0.132 0.398
 VOC Runni ng: 0.056 0.102 0.206 0.129 0.102
 0.254 1.278
 VOC Total Exhaust: 0.117 0.204 0.398 0.254 0.187 0.155
 0.386 0.373 1.68 0.220
 CO Start: 1.33 1.98 2.97 2.23 0.347
 0.293 3.563
 CO Runni ng: 3.09 3.78 5.66 4.26 0.523
 0.417 15.610
 CO Total Exhaust: 4.42 5.76 8.63 6.49 6.79 0.870
 0.710 1.531 19.17 5.395
 NOx Start: 0.065 0.101 0.175 0.120 0.015
 0.026 0.329
 NOx Runni ng: 0.332 0.418 0.718 0.494 0.327
 0.603 0.697
 NOx Total Exhaust: 0.397 0.520 0.893 0.614 1.983 0.342
 0.629 5.917 1.03 1.044

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Non-Exhaust Emissions (g/mi):								
	Hot Soak Loss:	0.087	0.112	0.224	0.140	0.200	0.000	
0.000	0.000	0.100	0.111					
	Diurnal Loss:	0.013	0.018	0.035	0.022	0.038	0.000	
0.000	0.000	0.089	0.018					
	Resting Loss:	0.054	0.074	0.152	0.094	0.145	0.000	
0.000	0.000	0.363	0.075					
	Running Loss:	0.087	0.113	0.220	0.140	0.182	0.000	
0.000	0.000	0.000	0.110					
	Crankcase Loss:	0.004	0.009	0.010	0.009	0.010	0.000	
0.000	0.000	0.000	0.007					
	Refueling Loss:	0.007	0.018	0.037	0.023	0.100	0.000	
0.000	0.000	0.000	0.018					
	Total Non-Exhaust:	0.253	0.344	0.678	0.431	0.675	0.000	
0.000	0.000	0.552	0.338					

Veh. Type:	LDGT1	LDGT2	LDGT3	LDGT4	LDDT12	LDDT34
VMT Mix:	0.0890	0.2970	0.0907	0.0404	0.0000	0.0019

Composite Emission Factors (g/mi):						
Composite VOC :	0.402	0.592	1.064	1.103	2.695	0.384
Composite CO :	4.58	6.12	8.57	8.78	4.727	0.706
Composite NOX :	0.374	0.564	0.809	1.082	2.750	0.627

Exhaust emissions (g/mi):						
VOC Start:	0.076	0.110	0.187	0.204	1.833	0.131
VOC Running:	0.062	0.114	0.199	0.221	0.862	0.253
VOC Total Exhaust:	0.138	0.224	0.386	0.425	2.695	0.384
CO Start:	1.66	2.08	2.92	3.09	3.540	0.290
CO Running:	2.91	4.04	5.64	5.70	1.186	0.416
CO Total Exhaust:	4.58	6.12	8.57	8.78	4.727	0.706
NOx Start:	0.073	0.110	0.161	0.206	0.381	0.026
NOx Running:	0.300	0.454	0.648	0.876	2.369	0.601
NOx Total Exhaust:	0.374	0.564	0.809	1.082	2.750	0.627

Non-Exhaust Emissions (g/mi):						
Hot Soak Loss:	0.091	0.118	0.224	0.224	0.000	0.000
Diurnal Loss:	0.014	0.019	0.035	0.035	0.000	0.000
Resting Loss:	0.063	0.078	0.152	0.152	0.000	0.000
Running Loss:	0.079	0.123	0.220	0.220	0.000	0.000
Crankcase Loss:	0.005	0.010	0.010	0.010	0.000	0.000
Refueling Loss:	0.011	0.021	0.037	0.037	0.000	0.000
Total Non-Exhaust:	0.264	0.368	0.678	0.678	0.000	0.000

Veh. Type:							
HDGV8A	HDGV8B	HDGV2B	HDGV3	HDGV4	HDGV5	HDGV6	HDGV7
		-----	-----	-----	-----	-----	-----
	VMT Mix:	0.0308	0.0011	0.0003	0.0009	0.0020	0.0009
0.0000	0.0000						

Composite Emission Factors (g/mi):

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2.001	Composite VOC :	0.772	0.758	2.047	1.455	1.389	1.525
	0.000						
10.55	Composite CO :	6.48	7.10	8.30	8.59	8.43	9.37
	0.00						
3.471	Composite NOX :	1.872	1.865	2.767	2.606	2.549	2.866
	0.000						

Exhaust emissions (g/mi):

0.314	VOC Total Exhaust:	0.178	0.169	0.245	0.238	0.233	0.260
	0.000						
10.55	CO Total Exhaust:	6.48	7.10	8.30	8.59	8.43	9.37
	0.00						
3.471	NOx Total Exhaust:	1.872	1.865	2.767	2.606	2.549	2.866
	0.000						

Non-Exhaust Emissions (g/mi):

0.532	Hot Soak Loss:	0.177	0.134	0.583	0.365	0.344	0.377
	0.000						
0.114	Diurnal Loss:	0.033	0.026	0.133	0.080	0.075	0.082
	0.000						
0.452	Resting Loss:	0.122	0.093	0.537	0.305	0.283	0.314
	0.000						
0.328	Running Loss:	0.172	0.139	0.348	0.237	0.228	0.245
	0.000						
0.010	Crankcase Loss:	0.010	0.010	0.010	0.010	0.010	0.010
	0.000						
0.251	Refueling Loss:	0.080	0.187	0.191	0.219	0.217	0.236
	0.000						
1.687	Total Non-Exhaust:	0.594	0.589	1.801	1.217	1.156	1.265
	0.000						

HDDV8A	Veh. Type: HDDV8B	HDDV2B	HDDV3	HDDV4	HDDV5	HDDV6	HDDV7
		-----	-----	-----	-----	-----	-----
0.0120	VMT Mix: 0.0400	0.0092	0.0029	0.0027	0.0011	0.0060	0.0091

Composite Emission Factors (g/mi):

0.381	Composite VOC :	0.150	0.162	0.225	0.237	0.296	0.367
	0.457						
1.512	Composite CO :	0.549	0.580	0.833	0.837	0.911	1.142
	2.040						
6.074	Composite NOX :	2.051	2.108	3.217	3.334	4.082	5.095
	7.494						

Exhaust emissions (g/mi):

0.381	VOC Total Exhaust:	0.150	0.162	0.225	0.237	0.296	0.367
	0.457						
1.512	CO Total Exhaust:	0.549	0.580	0.833	0.837	0.911	1.142
	2.040						
6.074	NOx Total Exhaust:	2.051	2.108	3.217	3.334	4.082	5.095
	7.494						

Non-Exhaust Emissions (g/mi):

	Hot Soak Loss:	0.000	0.000	0.000	0.000	0.000	0.000
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E2510.TXT

0.000	0.000						
	Di urnal Loss:	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000						
	Resti ng Loss:	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000						
	Runni ng Loss:	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000						
	Crankcase Loss:	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000						
	Refuel i ng Loss:	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000						
	Total Non-Exhaust:	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000						

Veh. Type:	GasBUS	URBAN	SCHOOL
VMT Mi x:	0.0001	0.0010	0.0019

Composi te Emi ssi on Factors (g/mi):			
Composi te VOC :	3.153	0.282	0.563
Composi te CO :	16.98	2.391	1.909
Composi te NOX :	7.559	11.262	8.647

Exhaust emi ssi ons (g/mi):			
VOC Total Exhaust:	0.652	0.282	0.563
CO Total Exhaust:	16.98	2.391	1.909
NOx Total Exhaust:	7.559	11.262	8.647

Non-Exhaust Emi ssi ons (g/mi):			
Hot Soak Loss:	0.612	0.000	0.000
Di urnal Loss:	0.135	0.000	0.000
Resti ng Loss:	0.552	0.000	0.000
Runni ng Loss:	0.916	0.000	0.000
Crankcase Loss:	0.008	0.000	0.000
Refuel i ng Loss:	0.277	0.000	0.000
Total Non-Exhaust:	2.501	0.000	0.000



Appendix H

GLOSSARY OR TERMS

Glossary of Terms

100-YEAR FLOOD - This is a flood having a 1 percent chance of occurring in any given year. Zones A and V of a Flood Insurance Rate Map (FIRM) encompass the area comprising the 100-year floodplain.

A
ABOVE GROUND LEVEL: The elevation of a point or surface above the ground.

ACCELERATE-STOP DISTANCE AVAILABLE (ASDA): See declared distances.

ADVISORY CIRCULAR: External publications issued by the FAA consisting of nonregulatory material providing for the recommendations relative to a policy, guidance and information relative to a specific aviation subject.

AIR CARRIER: An operator which: (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 current contract with the U.S. Postal Service. Certified in accordance with Federal Aviation Regulation (FAR) Parts 121 and 127.

AIRCRAFT: A transportation vehicle that is used or intended for use for flight.

AIRCRAFT APPROACH CATEGORY: A grouping of aircraft based on 1.3 times the stall speed in their landing configuration at their maximum certificated landing weight. The categories are as follows:

- Category A: Speed less than 91 knots.
- Category B: Speed 91 knots or more, but less than 121 knots.
- Category C: Speed 121 knots or more, but less than 141 knots.
- Category D: Speed 141 knots or more, but less than 166 knots.
- Category E: Speed greater than 166 knots.

AIRCRAFT OPERATION: The landing, takeoff, or touch-and-go procedure by an aircraft on a runway at an airport.

AIRCRAFT OPERATIONS AREA (AOA): A restricted and secure area on the airport property designed to protect all aspects related to aircraft operations.

AIRCRAFT OWNERS AND PILOTS ASSOCIATION: A private organization serving the interests and needs of general aviation pilots and aircraft owners.

AIRCRAFT RESCUE AND FIRE FIGHTING: A facility located at an airport that provides emergency vehicles, extinguishing agents, and personnel responsible for minimizing the impacts of an aircraft accident or incident.

AIRFIELD: The portion of an airport which contains the facilities necessary for the operation of aircraft.

AIRLINE HUB: An airport at which an airline concentrates a significant portion of its activity and which often has a significant amount of connecting traffic.

AIRPLANE DESIGN GROUP (ADG): A grouping of aircraft based upon wingspan. The groups are as follows:

- Group I: Up to but not including 49 feet.
- Group II: 49 feet up to but not including 79 feet.
- Group III: 79 feet up to but not including 118 feet.
- Group IV: 118 feet up to but not including 171 feet.
- Group V: 171 feet up to but not including 214 feet.
- Group VI: 214 feet or greater.

AIRPORT AUTHORITY: A quasi-governmental public organization responsible for setting the policies governing the management and operation of an airport or system of airports under its jurisdiction.

AIRPORT BEACON: A navigational aid located at an airport which displays a rotating light beam to identify whether an airport is lighted.

AIRPORT CAPITAL IMPROVEMENT PLAN: The planning program used by the Federal Aviation Administration to identify, prioritize, and distribute funds for airport development and the needs of the National Airspace System to meet specified national goals and objectives.

AIRPORT ELEVATION: The highest point on the runway system at an airport expressed in feet above mean sea level (MSL).

AIRPORT IMPROVEMENT PROGRAM: A program authorized by the Airport and Airway Improvement Act of 1982 that provides funding for airport planning and development.

AIRPORT LAYOUT DRAWING (ALD): The drawing of the airport showing the layout of existing and proposed airport facilities.

AIRPORT LAYOUT PLAN (ALP): A scaled drawing of the existing and planned land and facilities necessary for the operation and development of the airport.

AIRPORT LAYOUT PLAN DRAWING SET: A set of technical drawings depicting the current and future airport conditions. The individual sheets comprising the set can vary with the complexities of the airport, but the FAA-required drawings include the Airport Layout Plan (sometimes referred to as the Airport Layout Drawing (ALD), the Airport Airspace Drawing, and the Inner Portion of the Approach Surface Drawing, On-Airport Land Use Drawing, and Property Map.

AIRPORT MASTER PLAN: The planner's concept of the long-term development of an airport.

AIRPORT MOVEMENT AREA SAFETY SYSTEM: A system that provides automated alerts and warnings of potential runway incursions or other hazardous aircraft movement events.

AIRPORT OBSTRUCTION CHART: A scaled drawing depicting the Federal Aviation Regulation (FAR) Part 77 surfaces, a representation of objects that penetrate these surfaces, runway, taxiway, and ramp areas, navigational aids, buildings, roads and other detail in the vicinity of an airport.

AIRPORT REFERENCE CODE (ARC): A coding system used to relate airport design criteria to the operational (Aircraft Approach Category) to the physical characteristics (Airplane Design Group) of the airplanes intended to operate at the airport.

AIRPORT REFERENCE POINT (ARP): The latitude and longitude of the approximate center of the airport.

Glossary of Terms

AIRPORT SPONSOR: The entity that is legally responsible for the management and operation of an airport, including the fulfillment of the requirements of laws and regulations related thereto.

AIRPORT SURFACE DETECTION EQUIPMENT: A radar system that provides air traffic controllers with a visual representation of the movement of aircraft and other vehicles on the ground on the airfield at an airport.

AIRPORT SURVEILLANCE RADAR: The primary radar located at an airport or in an air traffic control terminal area that receives a signal at an antenna and transmits the signal to air traffic control display equipment defining the location of aircraft in the air. The signal provides only the azimuth and range of aircraft from the location of the antenna.

AIRPORT TRAFFIC CONTROL TOWER (ATCT): A central operations facility in the terminal air traffic control system, consisting of a tower, including an associated instrument flight rule (IFR) room if radar equipped, using air/ground communications and/or radar, visual signaling and other devices to provide safe and expeditious movement of terminal air traffic.

AIR ROUTE TRAFFIC CONTROL CENTER: A facility which provides en route air traffic control service to aircraft operating on an IFR flight plan within controlled airspace over a large, multi-state region.

AIRSIDE: The portion of an airport that contains the facilities necessary for the operation of aircraft.

AIRSPACE: The volume of space above the surface of the ground that is provided for the operation of aircraft.

AIR TAXI: An air carrier certificated in accordance with FAR Part 121 and FAR Part 135 and authorized to provide, on demand, public transportation of persons and property by aircraft. Generally operates small aircraft "for hire" for specific trips.

AIR TRAFFIC CONTROL: A service operated by an appropriate organization for the purpose of providing for the safe, orderly, and expeditious flow of air traffic.

Glossary of Terms

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

AIR TRAFFIC CONTROL SYSTEM COMMAND CENTER: A facility operated by the FAA which is responsible for the central flow control, the central altitude reservation system, the airport reservation position system, and the air traffic service contingency command for the air-traffic control system.

AIR TRAFFIC HUB: A categorization of commercial service airports or group of commercial service airports in a metropolitan or urban area based upon the proportion of annual national enplanements existing at the airport or airports. The categories are large hub, medium hub, small hub, or non-hub. It forms the basis for the apportionment of entitlement funds.

AIR TRANSPORT ASSOCIATION OF AMERICA: An organization consisting of the principal U.S. airlines that represents the interests of the airline industry on major aviation issues before federal, state, and local government bodies. It promotes air transportation safety by coordinating industry and governmental safety programs and it serves as a focal point for industry efforts to standardize practices and enhance the efficiency of the air transportation system.

ALERT AREA: See special-use airspace.

ALTITUDE: The vertical distance measured in feet above mean sea level.

ANNUAL INSTRUMENT APPROACH (AIA): An approach to an airport with the intent to land by an aircraft in accordance with an IFR flight plan when visibility is less than three miles and/or when the ceiling is at or below the minimum initial approach altitude.

APPROACH LIGHTING SYSTEM (ALS): An airport lighting facility which provides visual guidance to landing aircraft by radiating light beams by which the pilot aligns the aircraft with the extended centerline of the runway on his final approach and landing.

APPROACH MINIMUMS: The altitude below which an aircraft may not descend while on an IFR approach unless the pilot has the runway in sight.

APPROACH SURFACE: An imaginary obstruction limiting surface defined in FAR Part 77 which is longitudinally centered on an extended runway centerline and extends outward and upward from the primary surface at each end of a runway at a designated slope and distance based upon the type of available or planned approach by aircraft to a runway.

APRON: A specified portion of the airfield used for passenger, cargo or freight loading and unloading, aircraft parking, and the refueling, maintenance and servicing of aircraft.

AREA NAVIGATION: The air navigation procedure that provides the capability to establish and maintain a flight path on an arbitrary course that remains within the coverage area of navigational sources being used.

ATTAINMENT AREA: An attainment area is a geographical area where the levels of all criteria air pollutants meet the NAAQS.

AUTOMATED TERMINAL INFORMATION SERVICE (ATIS): The continuous broadcast of recorded non-control information at towered airports. Information typically includes wind speed, direction, and runway in use.

AUTOMATED SURFACE OBSERVATION SYSTEM (ASOS): A reporting system that provides frequent airport ground surface weather observation data through digitized voice broadcasts and printed reports.

AUTOMATED WEATHER OBSERVATION STATION (AWOS): Equipment used to automatically record weather conditions (i.e. cloud height, visibility, wind speed and direction, temperature, dew point, etc.)

AUTOMATIC DIRECTION FINDER (ADF): An aircraft radio navigation system which senses and indicates the direction to a non-directional radio beacon (NDB) ground transmitter.

AVIGATION EASEMENT: A contractual right or a property interest in land over which a right of unobstructed flight in the airspace is established.

AZIMUTH: Horizontal direction expressed as the angular distance between true north and the direction of a fixed point (as the observer's heading).

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. See "traffic pattern."

BASED AIRCRAFT: The general aviation aircraft that use a specific airport as a home base.

BEARING: The horizontal direction to or from any point, usually measured clockwise from true north or magnetic north.

BLAST FENCE: A barrier used to divert or dissipate jet blast or propeller wash.

BLAST PAD: A prepared surface adjacent to the end of a runway for the purpose of eliminating the erosion of the ground surface by the wind forces produced by airplanes at the initiation of takeoff operations.

BUILDING RESTRICTION LINE (BRL): A line which identifies suitable building area locations on the airport.

CANDIDATE SPECIES: Any species that either FWS or NMFS is considering for listing as "endangered" or "threatened", but has not yet been the subject of a proposed rule. These species have no legal status and do not have protection under the ESA. However, their inclusion is intended to alert Federal agencies of potential proposals or listings

CAPITAL IMPROVEMENT PLAN: The planning program used by the Federal Aviation Administration to identify, prioritize, and distribute Airport Improvement Program funds for airport development and the needs of the National Airspace System to meet specified national goals and objectives.

CARGO SERVICE AIRPORT: An airport served by aircraft providing air transportation of property only, including mail, with an annual aggregate landed weight of at least

100,000,000 pounds.

CATEGORY I: An Instrument Landing System (ILS) that provides acceptable guidance information to an aircraft from the coverage limits of the ILS to the point at which the localizer course line intersects the glide path at a decision height of 100 feet above the horizontal plane containing the runway threshold.

CATEGORY II: An ILS that provides acceptable guidance information to an aircraft from the coverage limits of the ILS to the point at which the localizer course line intersects the glide path at a decision height of 50 feet above the horizontal plane containing the runway threshold.

CATEGORY III: An ILS that provides acceptable guidance information to a pilot from the coverage limits of the ILS with no decision height specified above the horizontal plane containing the runway threshold.

CEILING: The height above the ground surface to the location of the lowest layer of clouds which is reported as either broken or overcast.

CIRCLING APPROACH: A maneuver initiated by the pilot to align the aircraft with the runway for landing when flying a predetermined circling instrument approach under IFR.

CLASS A AIRSPACE: See Controlled Airspace.

CLASS B AIRSPACE: See Controlled Airspace.

CLASS C AIRSPACE: See Controlled Airspace.

CLASS D AIRSPACE: See Controlled Airspace.

CLASS E AIRSPACE: See Controlled Airspace.

CLASS G AIRSPACE: See Controlled Airspace.

CLEAR ZONE: See Runway Protection Zone.

COMMERCIAL SERVICE AIRPORT: A public airport providing scheduled passenger service that enplanes at least 2,500 annual passengers.

COMMON TRAFFIC ADVISORY FREQUENCY: A radio frequency identified in the appropriate

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E

EASEMENT: The legal right of one party to use a portion of the total rights in real estate owned by another party. This may include the right of passage over, on, or below the property; certain air rights above the property, including view rights; and the rights to any specified form of development or activity, as well as any other legal rights in the property that may be specified in the easement document.

ELEVATION: The vertical distance measured in feet above mean sea level.

ENDANGERED SPECIES: Any species that either the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) designates in danger of extinction throughout all or a significant portion of the species' range

ENPLANED PASSENGERS: The total number of revenue passengers boarding aircraft, including originating, stop-over, and transfer passengers, in scheduled and nonscheduled services.

ENPLANEMENT: The boarding of a passenger, cargo, freight, or mail on an aircraft at an airport.

ENTITLEMENT: Federal funds for which a commercial service airport may be eligible based upon its annual passenger enplanements.

ENVIRONMENTAL ASSESSMENT (EA): An environmental analysis performed pursuant to the National Environmental Policy Act to determine whether an action would significantly affect the environment and thus require a more detailed environmental impact statement.

ENVIRONMENTAL AUDIT: An assessment of the current status of a party's compliance with applicable environmental requirements of a party's environmental compliance policies, practices, and controls.

ENVIRONMENTAL DUE DILIGENCE AUDIT (EDDA): An EDDA is a systematic investigation of real property to determine if activities involving hazardous materials have occurred at a site or resulted in environmental contamination.

ENVIRONMENTAL IMPACT STATEMENT (EIS): A document required of federal agencies by the

National Environmental Policy Act for major projects are legislative proposals affecting the environment. It is a tool for decision-making describing the positive and negative effects of a proposed action and citing alternative actions.

ENVIRONMENTAL JUSTICE: Environmental justice analysis considers the potential of Federal actions to cause disproportionate and adverse effects on low-income or minority populations. Environmental justice ensures no low-income or minority population bears a disproportionate burden of effects resulting from Federal actions.

ESSENTIAL AIR SERVICE: A federal program which guarantees air carrier service to selected small cities by providing subsidies as needed to prevent these cities from such service.

F

FEDERAL AVIATION REGULATIONS: The general and permanent rules established by the executive departments and agencies of the Federal Government for aviation, which are published in the Federal Register. These are the aviation subset of the Code of Federal Regulations.

FEDERAL INSPECTION SERVICES: The provision of customs and immigration services including passport inspection, inspection of baggage, the collection of duties on certain imported items, and the inspections for agricultural products, illegal drugs, or other restricted items.

FINAL APPROACH: A flight path in the direction of landing along the extended runway centerline. The final approach normally extends from the base leg to the runway. See "traffic pattern."

FINAL APPROACH AND TAKEOFF AREA (FATO): A defined area over which the final phase of the helicopter approach to a hover, or a landing is completed and from which the takeoff is initiated.

FINAL APPROACH FIX: The designated point at which the final approach segment for an aircraft landing on a runway begins for a non-precision approach.

FINDING OF NO SIGNIFICANT IMPACT (FONSI): A public document prepared by a Federal agency that presents the rationale why a proposed

action will not have a significant effect on the environment and for which an environmental impact statement will not be prepared.

FIXED BASE OPERATOR (FBO): A provider of services to users of an airport. Such services include, but are not limited to, hangaring, fueling, flight training, repair, and maintenance.

FLIGHT LEVEL: A designation for altitude within controlled airspace.

FLIGHT SERVICE STATION: An operations facility in the national flight advisory system which utilizes data interchange facilities for the collection and dissemination of Notices to Airmen, weather, and administrative data and which provides pre-flight and in-flight advisory services to pilots through air and ground based communication facilities.

FRANGIBLE NAVAID: A navigational aid which retains its structural integrity and stiffness up to a designated maximum load, but on impact from a greater load, breaks, distorts, or yields in such a manner as to present the minimum hazard to aircraft.

G

GENERAL AVIATION: That portion of civil aviation which encompasses all facets of aviation except air carriers holding a certificate of convenience and necessity, and large aircraft commercial operators.

GENERAL AVIATION AIRPORT: An airport that provides air service to only general aviation.

GENERAL CONFORMITY: General Conformity refers to the requirements under Section 176(c) of the Clean Air Act (CAA) for federal agencies to show that their actions conform to the purpose of the applicable SIP. Section 176(c) of the CAA states:

"No department, agency, or instrumentality of the Federal government must engage in, support in any way or provide financial aid for, license or permit, or approve, any activity which does not conform to an approved State Implementation Plan (SIP)."

As a result, Federal agencies cannot fund or approve activities that do not conform to the SIP established for a nonattainment or maintenance area. Therefore, a

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Federal action in nonattainment or maintenance area must not:

- (1) cause or contribute to NAAQS new violations;
- (2) increase the frequency or severity of any existing NAAQS; or
- (3) delay the timely attainment of a NAAQS, interim emissions decreases, or other milestones.

GENERAL POPULATION: This is the population that an action affects, but that is not a low-income or minority population.

GLIDESLOPE (GS): Provides vertical guidance for aircraft during approach and landing. The glideslope consists of the following:

1. Electronic components emitting signals which provide vertical guidance by reference to airborne instruments during instrument approaches such as ILS; or

2. Visual ground aids, such as VASI, which provide vertical guidance for VFR approach or for the visual portion of an instrument approach and landing.

GLOBAL POSITIONING SYSTEM (GPS): A system of 24 satellites used as reference points to enable navigators equipped with GPS receivers to determine their latitude, longitude, and altitude.

GROUND ACCESS: The transportation system on and around the airport that provides access to and from the airport by ground transportation vehicles for passengers, employees, cargo, freight, and airport services.

H

HAZARDOUS MATERIALS: According to 49 CFR Part 172, Table 172.101, these are any substances or materials commercially transported that pose unreasonable risk to public health, safety, and property. They include hazardous wastes and hazardous substances as well as petroleum and natural gas substances and materials.

HAZARDOUS SUBSTANCES: Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. § 9601(14)) defines this term broadly. It includes hazardous waste, hazardous air pollutants,

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I
INDIRECT EMISSIONS: Indirect emissions are emissions caused by a proposed Federal action that occur later in time and/or at a distance from the proposed action.

INITIAL APPROACH FIX: The designated point at which the initial approach segment begins for an instrument approach to a runway.

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.

INSTRUMENT FLIGHT RULES (IFR): Procedures for the conduct of flight in weather conditions below Visual Flight Rules weather minimums. The term IFR is often also used to define weather conditions and the type of flight plan under which an aircraft is operating.

INSTRUMENT LANDING SYSTEM (ILS): A precision instrument approach system which normally consists of the following electronic components and visual aids:

1. Localizer.
2. Glide Slope.
3. Outer Marker.
4. Middle Marker.
5. Approach Lights.

INSTRUMENT METEOROLOGICAL CONDITIONS: Meteorological conditions expressed in terms of specific visibility and ceiling conditions that are less than the minimums specified for visual meteorological conditions.

ITINERANT OPERATIONS: Operations by aircraft that are not based at a specified airport.

J
JURISDICTIONAL WETLANDS - Section 404 of the Clean Water Act (CWA) governs the dredging and filling of navigable waters of the U.S. The term, "navigable waters of the U.S." includes wetlands connected or adjacent to navigable waters of the U.S.

hazardous substances designated as such pursuant to the Clean Water Act and the Toxic Substances Control Act and elements, compounds, mixtures, solutions, or substances listed in 40 CFR Part 302 that pose substantial harm to human health or environmental resources. It should be noted that, pursuant to CERCLA, hazardous substances do not include any petroleum or natural gas substances and materials.

HAZARDOUS WASTES: Regulations developed pursuant to the Resource Conservation and Recovery Act (RCRA) at 40 CFR Part 261, Subpart C, define this term. Hazardous wastes are solid wastes that are ignitable, corrosive, reactive, or toxic (sometimes called "characteristic wastes"). In addition, Subpart D contains a list of specific types of solid wastes that the EPA has deemed hazardous (sometimes called "listed wastes").

HELIPAD: A designated area for the takeoff, landing, and parking of helicopters.

HIGH INTENSITY RUNWAY LIGHTS: The highest classification in terms of intensity or brightness for lights designated for use in delineating the sides of a runway.

HIGH-SPEED EXIT TAXIWAY: A long radius taxiway designed to expedite aircraft turning off the runway after landing (at speeds to 60 knots), thus reducing runway occupancy time.

HISTORIC PROPERTY: A historic property is, "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior" (36 CFR Section 800.16(f)). Properties or sites having traditional religious or cultural importance to Native American Tribes and Hawaiian organizations may qualify. To qualify, a property must meet the criteria for eligibility under 36 CFR Section 60.4.

HORIZONTAL SURFACE: An imaginary obstruction- limiting surface defined in FAR Part 77 that is specified as a portion of a horizontal plane surrounding a runway located 150 feet above the established airport elevation. The specific horizontal dimensions of this surface are a function of the types of approaches existing or planned for the runway.

Navigable waters of the U.S. are those waters that are subject to the ebb and flow of the tide and/or are used, have been used in the past, or may be susceptible to use to transport interstate or foreign commerce (see 33 CFR Section 329.4). In carrying out Section 404, the Corps uses 33 CFR Parts 320 through 330 to define wetlands under its jurisdiction. To conduct dredge or fill activities in these wetlands, the Corps must issue a permit authorizing those activities. Wetlands under the Corps' jurisdiction are:

"[A]reas that surface or groundwater inundate or saturate at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include swamps, marshes, bogs, and similar areas."

K
KNOTS: A unit of speed length used in navigation that is equivalent to the number of nautical miles traveled in one hour.

L
LANDSIDE: The portion of an airport that provides the facilities necessary for the processing of passengers, cargo, freight, and ground transportation vehicles.

LANDING DISTANCE AVAILABLE (LDA): See declared distances.

LARGE AIRPLANE: An airplane that has a maximum certified takeoff weight in excess of 12,500 pounds.

LOCAL AREA AUGMENTATION SYSTEM: A differential GPS system that provides localized measurement correction signals to the basic GPS signals to improve navigational accuracy integrity, continuity, and availability.

LOCAL OPERATIONS: Aircraft operations performed by aircraft that are based at the airport and that operate in the local traffic pattern or within sight of the airport, that are known to be departing for or arriving from flights in local practice areas within a prescribed distance from the airport, or that execute simulated instrument approaches at the airport.

LOCAL TRAFFIC: Aircraft operating in the traffic pattern or within sight of the tower, or aircraft known

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to be departing or arriving from the local practice areas, or aircraft executing practice instrument approach procedures. Typically, this includes touch and-go training operations.

LOCALIZER: The component of an ILS which provides course guidance to the runway.

LOCALIZER TYPE DIRECTIONAL AID (LDA): A facility of comparable utility and accuracy to a localizer, but is not part of a complete ILS and is not aligned with the runway.

LONG RANGE NAVIGATION SYSTEM (LORAN): Long range navigation is an electronic navigational aid which determines aircraft position and speed by measuring the difference in the time of reception of synchronized pulse signals from two fixed transmitters. Loran is used for en route navigation.

LOW-INCOME: According to DOT Order 5610.2, Environmental Justice in Minority and Low-Income Populations, Appendix 1.a, this is a person having a median household income at or below the Department of Health and Human Services' (HHS) poverty guidelines. Although DOT Order 5610.2 directs DOT agencies to HHS poverty guidelines, guidance from the Council on Environmental Quality (CEQ) and the EPA uses the Census Bureau's annual statistical poverty thresholds on income and poverty (Series P-60) to define low income.

LOW-INCOME POPULATION: A low-income population is any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy, or activity.

LOW INTENSITY RUNWAY LIGHTS: The lowest classification in terms of intensity or brightness for lights designated for use in delineating the sides of a runway.

M
MAINTENANCE AREA: This is an area previously designated "nonattainment" but re-designated as a "maintenance area".

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MEDIUM INTENSITY RUNWAY LIGHTS:

The middle classification in terms of intensity or brightness for lights designated for use in delineating the sides of a runway.

MICROWAVE LANDING SYSTEM (MLS):

An instrument approach and landing system that provides precision guidance in azimuth, elevation, and distance measurement.

MIGRATORY BIRD TREATY ACT OF 1918:

Actions that may take a migratory bird species are prohibited. If an action may take a migratory bird or affect its breeding habitat, consultation with the FWS is needed. If it is determined there are no feasible alternatives to taking the migratory bird or its nest, FWS must issue a permit for the taking. The permit will likely require mitigation.

MILITARY OPERATIONS:

Aircraft operations that are performed in military aircraft.

MINORITY:

DOT Order 5610.2 Appendix 1.c

defines this term as a person who is:

- (1) Black (a person having origins in any of the black racial groups of Africa);
- (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or Spanish culture or origin, regardless of race);
- (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
- (4) American Indian and Alaskan Native (a person having origins in any of the original peoples of North America and who preserves cultural identification through tribal affiliation or community recognition).

MINORITY POPULATION -

This population is one the action would affect. It is comprised of Black, Hispanic, Asian-American, or American Indian and Alaskan Native individuals. Each, several, or all of these ethnic groups may live in geographic proximity to one another or may be geographically scattered or transient (e.g., migrant workers) who will be similarly affected by a proposed program, policy, or activity.

MILITARY OPERATIONS AREA (MOA):

See special-use airspace
MILITARY TRAINING ROUTE: An air route depicted on aeronautical charts for the conduct of military flight training at speeds above 250 knots.

MISSED APPROACH COURSE (MAC):

The flight route to be followed if, after an instrument approach, a landing is not affected, and occurring normally:

1. When the aircraft has descended to the decision height and has not established visual contact; or
2. When directed by air traffic control to pull up or to go around again.

MOVEMENT AREA: The runways, taxiways, and other areas of an airport which are utilized for taxiing/ hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and parking areas. At those airports with a tower, air traffic control clearance is required for entry onto the movement area.

N

NATIONAL AIRSPACE SYSTEM: The network of air traffic control facilities, air traffic control areas, and navigational facilities through the U.S.

NATIONAL AMBIENT AIR QUALITY

STANDARDS: Pursuant to the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six "criteria" air pollutants: carbon monoxide (CO); lead (Pb); nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM) for both PM₁₀ and PM_{2.5}, and sulfur dioxide (SO₂). Compliance with the NAAQS means the ambient outdoor levels of these air pollutants are safe for human health, the public welfare, and the environment. States are responsible for designating areas that are attainment, nonattainment, or maintenance for each of the criteria pollutants. States are required to develop EPA-approved plans, called State Implementation Plans (SIPs), to achieve or maintain the NAAQS within timeframes set under the Clean Air Act.

THE NATIONAL ENVIRONMENTAL POLICY

ACT, [42 USC SECTIONS 4321-4347]. - The Act establishes a national environmental policy and the Council on Environmental Quality (CEQ) to oversee the Act's implementation. The national policy encourages citizens to maintain productive and enjoyable relations between activities and the environment; to promote efforts preventing or removing damage to the environment and biosphere; to stimulate the health and welfare of man; and to

enrich our understanding of the Nation's ecological systems and natural resources.

NATIONAL PLAN OF INTEGRATED AIRPORT

SYSTEMS: The national airport system plan developed by the Secretary of Transportation on a biannual basis for the development of public use airports to meet national air transportation needs.

NATIONAL TRANSPORTATION SAFETY

BOARD: A federal government organization established to investigate and determine the probable cause of transportation accidents, to recommend equipment and procedures to enhance transportation safety, and to review on appeal the suspension or revocation of any certificates or licenses issued by the Secretary of Transportation.

NAUTICAL MILE:

A unit of length used in navigation which is equivalent to the distance spanned by one minute of arc in latitude, that is, 1,852 meters or 6,076 feet. It is equivalent to approximately 1.15 statute mile.

NAVAID: A term used to describe any electrical or visual air navigational aids, lights, signs, and associated supporting equipment (i.e. PAPI, VASI, ILS, etc.)

NAVIGATIONAL AID: A facility used as, available for use as, or designed for use as an aid to air navigation.

NOISE CONTOUR: A continuous line on a map of the airport vicinity connecting all points of the same noise exposure level.

NONATTAINMENT AREA:

A nonattainment area is a geographic area where the concentration of one or more of the criteria air pollutants is higher than the NAAQS. It is not uncommon for an area to have acceptable levels of five criteria pollutants but an unacceptable level for another. For example, the Washington, D.C., metropolitan area is simultaneously designated attainment for CO but nonattainment for 8-hour ozone.

NON-DIRECTIONAL BEACON (NDB): A beacon transmitting nondirectional signals whereby the pilot of an aircraft equipped with direction finding equipment can determine his or her bearing to and from the radio beacon and home on, or track to,

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the station. When the radio beacon is installed in conjunction with the Instrument Landing System marker, it is normally called a Compass Locator.

NONJURISDICTIONAL WETLANDS

Nonjurisdictional wetlands do not involve navigable waters because they are not connected to or adjacent to navigable waters of the United States (U.S.). Dredge and fill activities in these wetlands do not require U.S. Army Corps of Engineers (Corps) approvals, but these wetlands are natural resources FAA must assess under NEPA.

NON-POINT SOURCES: These include stormwater runoff from runways, taxiways, aprons, outdoor storage areas, or construction areas that do not flow through conveyance systems. Federal permits are not necessary for non-point source discharges.

NON-PRECISION APPROACH PROCEDURE:

A standard instrument approach procedure in which no electronic glide slope is provided, such as VOR, TACAN, NDB, or LOC.

NOTICE TO AIRMEN: A notice containing information concerning the establishment, condition, or change in any component of or hazard in the National Airspace System, the timely knowledge of which is considered essential to personnel concerned with flight operations.

O

OBJECT FREE AREA (OFA): An area on the ground centered on a runway, taxiway, or taxiway centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

OBSTACLE FREE ZONE (OFZ): The airspace below 150 feet above the established airport elevation and along the runway and extended runway centerline that is required to be kept clear of all objects, except for frangible visual NAVAIDS that need to be located in the OFZ because of their function, in order to provide clearance for aircraft landing or taking off from the runway, and for missed approaches.

ONE-ENGINE INOPERABLE SURFACE: A surface emanating from the runway end at a slope

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ratio of 62.5:1. Air carrier airports are required to maintain a technical drawing of this surface depicting any object penetrations by January 1, 2010.

OPERATION: The take-off, landing, or touch-and-go procedure by an aircraft on a runway at an airport.

OUTER MARKER (OM): An ILS navigation facility in the terminal area navigation system located four to seven miles from the runway edge on the extended centerline, indicating to the pilot that he/she is passing over the facility and can begin final approach.

P

PILOT CONTROLLED LIGHTING: Runway lighting systems at an airport that are controlled by activating the microphone of a pilot on a specified radio frequency.

POINT SOURCES: These are stormwater or other types of discharges from wastewater treatment plants, sanitary sewer systems, collection basins, or other water collection devices that flow through a conveyance (pipe) and discharge to a waterway. The states and the U.S. Environmental Protection Agency (EPA) issue National Pollutant Discharge Elimination System (NPDES) permits authorizing point source discharges into navigable waters of the United States under Section 402 of the Clean Water Act (CWA) (33 USC Section 1342).

PRECISION APPROACH: A standard instrument approach procedure which provides runway alignment and glide slope (descent) information. It is categorized as follows:

- **CATEGORY I (CAT I):** A precision approach which provides for approaches with a decision height of not less than 200 feet and visibility not less than 1/2 mile or Runway Visual Range (RVR) 2400 (RVR 1800) with operative touchdown zone and runway centerline lights.
- **CATEGORY II (CAT II):** A precision approach which provides for approaches with a decision height of not less than 100 feet and visibility not less than 700 feet RVR.
- **CATEGORY III (CAT III):** A precision approach which provides for approaches with a minimum less than Category II.

PRECISION APPROACH PATH INDICATOR (PAPI): A lighting system providing visual approach slope guidance to aircraft during a landing approach. It is similar to a VASI but provides a sharper transition between the colored indicator lights.

PRECISION APPROACH RADAR: A radar facility in the terminal air traffic control system used to detect and display with a high degree of accuracy the direction, range, and elevation of an aircraft on the final approach to a runway.

PRECISION OBJECT FREE AREA (POFA): An area centered on the extended runway centerline, beginning at the runway threshold and extending behind the runway threshold that is 200 feet long by 800 feet wide. The POFA is a clearing standard which requires the POFA to be kept clear of above ground objects protruding above the runway safety area edge elevation (except for frangible NAVAIDS). The POFA applies to all new authorized instrument approach procedures with less than 3/4 mile visibility.

PRIMARY AIRPORT: A commercial service airport that enplanes at least 10,000 annual passengers.

PRIMARY SURFACE: An imaginary obstruction limiting surface defined in FAR Part 77 that is specified as a rectangular surface longitudinally centered about a runway. The specific dimensions of this surface are a function of the types of approaches existing or planned for the runway.

PRIME FARMLAND: This is land having the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimal use of fuel, fertilizer, pesticides, or products.

PROHIBITED AREA: See special-use airspace.

PVC: Poor visibility and ceiling. Used in determining Annual Service Volume. PVC conditions exist when the cloud ceiling is less than 500 feet and visibility is less than one mile.

R

RADIAL: A navigational signal generated by a Very High Frequency Omni-directional Range or

VORTAC station that is measured as an azimuth from the station.

REGRESSION ANALYSIS: A statistical technique that seeks to identify and quantify the relationships between factors associated with a forecast.

REMOTE COMMUNICATIONS OUTLET (RCO): An unstaffed transmitter receiver/facility remotely controlled by air traffic personnel. RCOs serve flight service stations (FSSs). RCOs were established to provide ground-to-ground communications between air traffic control specialists and pilots at satellite airports for delivering en route clearances, issuing departure authorizations, and acknowledging instrument flight rules cancellations or departure/landing times.

REMOTE TRANSMITTER/RECEIVER (RTR): See remote communications outlet. RTRs serve ARTCCs.

RELIEVER AIRPORT: An airport to serve general aviation aircraft which might otherwise use a congested air-carrier served airport.

RESTRICTED AREA: See special-use airspace.

RNAV: Area navigation - airborne equipment which permits flights over determined tracks within prescribed accuracy tolerances without the need to overly ground-based navigation facilities. Used en route and for approaches to an airport.

RUNOFF POLLUTANTS: Point source and non-point source runoff may contain pollutants such as metals, oils, greases, hazardous materials, solids, hydrocarbons, pesticides, and herbicides. During dry weather, pollutants can accumulate on impermeable surfaces, but during storms they are washed into creeks, streams, lakes, or other waters causing potential water quality impacts.

RUNWAY: A defined rectangular area on an airport prepared for aircraft landing and takeoff. Runways are normally numbered in relation to their magnetic direction, rounded off to the nearest 10 degrees. For example, a runway with a magnetic heading of 180 would be designated Runway 18. The runway heading on the opposite end of the runway is 180 degrees from that runway end. For example, the opposite runway heading for Runway 18 would be Runway 36 (magnetic

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heading of 360). Aircraft can takeoff or land from either end of a runway, depending upon wind direction.

RUNWAY ALIGNMENT INDICATOR LIGHT: A series of high intensity sequentially flashing lights installed on the extended centerline of the runway usually in conjunction with an approach lighting system.

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

RUNWAY GRADIENT: The average slope, measured in percent, between the two ends of a runway.

RUNWAY PROTECTION ZONE (RPZ): An area off the runway end to enhance the protection of people and property on the ground. The RPZ is trapezoidal in shape. Its dimensions are determined by the aircraft approach speed and runway approach type and minima.

RUNWAY SAFETY AREA (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

RUNWAY VISIBILITY ZONE (RVZ): An area on the airport to be kept clear of permanent objects so that there is an unobstructed line of sight from any point five feet above the runway centerline to any point five feet above an intersecting runway centerline.

RUNWAY VISUAL RANGE (RVR): An instrumentally derived value, in feet, representing the horizontal distance a pilot can see down the runway from the runway end.

S

SCOPE: The document that identifies and defines the tasks, emphasis, and level of effort associated with a project or study.

SECTION 4(F) REQUIREMENTS: Section 4(f) states that, subject to exceptions for de minimis impacts, the Secretary of Transportation (Secretary)

Glossary of Terms

may approve a transportation program or project requiring the use of publicly-owned land of a park, recreational area, or wildlife and waterfowl refuge of national, state, or local significance or land of a historic site of national, state, or local significance as determined by the official having jurisdiction over those resources only if:

- (1) there is no prudent and feasible alternative that would avoid using those resources, and
- (2) the program or project includes all possible planning to minimize harm resulting from the use.

SEGMENTED CIRCLE: A system of visual indicators designed to provide traffic pattern information at airports without operating control towers.

SHOULDER: An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface; support for aircraft running off the pavement; enhanced drainage; and blast protection. The shoulder does not necessarily need to be paved.

SLANT-RANGE DISTANCE: The straight line distance between an aircraft and a point on the ground.

SMALL AIRPLANE: An airplane that has a maximum certified takeoff weight of up to 12,500 pounds.

SPECIAL-USE AIRSPACE: Airspace of defined dimensions identified by a surface area 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. Special-use airspace classifications include:

- **ALERT AREA:** Airspace which may contain a high volume of pilot training activities or an unusual type of aerial activity, neither of which is hazardous to aircraft.
- **CONTROLLED FIRING AREA:** Airspace where in activities are conducted under conditions so controlled as to eliminate hazards to nonparticipating aircraft and to ensure the safety of persons or property on the ground.
- **MILITARY OPERATIONS AREA (MOA):** Designated airspace with defined vertical and lateral dimensions established outside Class A airspace to separate/segregate certain military

activities from instrument flight rule (IFR) traffic and to identify for visual flight rule (VFR) traffic where these activities are conducted.

- **PROHIBITED AREA:** Designated airspace within which the flight of aircraft is prohibited.

- **RESTRICTED AREA:** Airspace designated under Federal Aviation Regulation (FAR) 73, within which the flight of aircraft, while not wholly prohibited, is subject to restriction. Most restricted areas are designated joint use. When not in use by the using agency, IFR/VFR operations can be authorized by the controlling air traffic control facility.

- **WARNING AREA:** Airspace which may contain hazards to nonparticipating aircraft.

STANDARD INSTRUMENT DEPARTURE (SID): A preplanned coded air traffic control IFR departure routing, preprinted for pilot use in graphic and textual form only.

STANDARD INSTRUMENT DEPARTURE PROCEDURES: A published standard flight procedure to be utilized following takeoff to provide a transition between the airport and the terminal area or en route airspace.

STANDARD TERMINAL ARRIVAL ROUTE (STAR): A preplanned coded air traffic control IFR arrival routing, preprinted for pilot use in graphic and textual or textual form only.

STATE IMPLEMENTATION PLAN (SIP): This is a state's detailed description of the regulations, programs, and measures to be used in that state to reduce air pollution and fulfill its responsibilities under the Clean Air Act, as amended (CAA) to attain the NAAQS for all criteria pollutants within the legally required timeframes. The CAA requires each State to prepare and submit a SIP to EPA for approval. EPA's review process for SIPs includes opportunities for public comment.

STATEWIDE AND LOCALLY IMPORTANT FARMLAND: This is land that has been designated as "important" by either a state government (State Secretary of Agriculture or higher office) or by county commissioners or an equivalent elected body.

The State Conservationist representing the Natural Resource Conservation Service (NRCS) must agree with the designation.

STOP-AND-GO: A procedure wherein an aircraft will land, make a complete stop on the runway, and then commence a takeoff from that point. A stop-and-go is recorded as two operations: one operation for the landing and one operation for the takeoff.

STOPWAY: An area beyond the end of a takeoff runway that is designed to support an aircraft during an aborted takeoff without causing structural damage to the aircraft. It is not to be used for takeoff, landing, or taxiing by aircraft.

STRAIGHT-IN LANDING/APPROACH: A landing made on a runway aligned within 30 degrees of the final approach course following completion of an instrument approach.

T

TACTICAL AIR NAVIGATION (TACAN): An ultrahigh frequency electronic air navigation system which provides suitably-equipped aircraft a continuous indication of bearing and distance to the TACAN station.

TAKEOFF RUNWAY AVAILABLE (TORA): See declared distances.

TAKEOFF DISTANCE AVAILABLE (TODA): See declared distances.

TAXILANE: The portion of the aircraft parking area used for access between taxiways and aircraft parking positions.

TAXIWAY: A defined path established for the taxiing of aircraft from one part of an airport to another.

TAXIWAY SAFETY AREA (TSA): A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

TERMINAL INSTRUMENT PROCEDURES: Published flight procedures for conducting instrument approaches to runways under instrument meteorological conditions.

Glossary of Terms

TERMINAL RADAR APPROACH CONTROL: An element of the air traffic control system responsible for monitoring the en-route and terminal segment of air traffic in the airspace surrounding airports with moderate to high levels of air traffic.

TETRAHEDRON: A device used as a landing direction indicator. The small end of the tetrahedron points in the direction of landing.

THREATENED SPECIES: Any species that either FWS or NMFS states is likely to become an endangered species within the foreseeable future throughout all or a significant portion of the species' range.

THRESHOLD: The beginning of that portion of the runway available for landing. In some instances the landing threshold may be displaced.

TOUCH-AND-GO: An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway. A touch-and go is recorded as two operations: one operation for the landing and one operation for the takeoff.

TOUCHDOWN: The point at which a landing aircraft makes contact with the runway surface.

TOUCHDOWN AND LIFT-OFF AREA (TLOF): A load bearing, generally paved area, normally centered in the FATO, on which the helicopter lands or takes off.

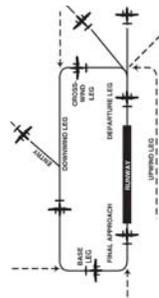
TOUCHDOWN ZONE (TDZ): The first 3,000 feet of the runway beginning at the threshold.

TOUCHDOWN ZONE ELEVATION (TDZE): The highest elevation in the touchdown zone.

TOUCHDOWN ZONE (TDZ) LIGHTING: Two rows of transverse light bars located symmetrically about the runway centerline normally at 100-foot intervals. The basic system extends 3,000 feet along the runway.

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

Traffic Pattern Illustration



U

UNCONTROLLED AIRPORT: An airport without an air traffic control tower at which the control of Visual Flight Rules traffic is not exercised.

UNCONTROLLED AIRSPACE: Airspace within which aircraft are not subject to air traffic control.

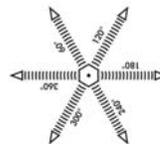
UNIQUE FARMLAND: This is land used for producing high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture necessary to produce high quality crops or high yields of them economically.

UNIVERSAL COMMUNICATION (UNICOM): A nongovernment communication facility which may provide airport information at certain airports. Locations and frequencies of UNICOM's are shown on aeronautical charts and publications.

UPWIND LEG: A flight path parallel to the landing runway in the direction of landing. See "traffic pattern."

V

VECTOR: A heading issued to an aircraft to provide navigational guidance by radar.



VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE (VOR): A ground-based electronic navigation aid transmitting very high frequency navigation signals, 360 degrees in azimuth, oriented from magnetic north. Used as the basis for navigation in the national airspace system. The VOR periodically identifies itself by Morse Code and may have an additional voice identification feature.

W

WARNING AREA: See special-use airspace.

WIDE AREA AUGMENTATION SYSTEM: An enhancement of the Global Positioning System that includes integrity broadcasts, differential corrections, and additional ranging signals for the purpose of providing the accuracy, integrity, availability, and continuity required to support all phases of flight.

VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE/ TACTICAL AIR NAVIGATION (VORTAC): A navigation aid providing VOR azimuth, TACAN azimuth, and TACAN distance-measuring equipment (DME) at one site.

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

VISUAL APPROACH: An approach wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of an air traffic control facility and having an air traffic control authorization, may proceed to the airport of destination in VFR conditions.

VISUAL APPROACH SLOPE INDICATOR (VASI): An airport lighting facility providing vertical visual approach slope guidance to aircraft during approach to landing by radiating a directional pattern of high intensity red and white focused light beams which indicate to the pilot that he is on path if he sees red/white, above path if white/white, and below path if red/red. Some airports serving large aircraft have three-bar VASI's which provide two visual guide paths to the same runway.

VISUAL FLIGHT RULES (VFR): Rules that govern the procedures for conducting flight under visual conditions. The term VFR is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate type of flight plan.

VISUAL METEOROLOGICAL CONDITIONS: Meteorological conditions expressed in terms of specific visibility and ceiling conditions which are equal to or greater than the threshold values for instrument meteorological conditions.

VOR: See "Very High Frequency Omnidirectional Range Station."

VORTAC: See "Very High Frequency Omnidirectional Range Station/Tactical Air Navigation."

Abbreviations

AC: advisory circular	ASR: airport surveillance radar
ADF: automatic direction finder	AST: Above Ground Storage Tank
ADG: airplane design group	ATCT: airport traffic control tower
AEM: Area Equivalent Method	ATIS: automated terminal information service
AFSS: automated flight service station	AVGAS: aviation gasoline - typically 100 low lead (100L)
AGL: above ground level	AWOS: automated weather observation station
AIA: annual instrument approach	BA: Biological Assessment
AIP: Airport Improvement Program	BE: Biological Evaluation
AIR-21: Wendell H. Ford Aviation Investment and Reform Act for the 21st Century	BMP: Best Management Practice
ALS: approach lighting system	BRL: building restriction line
ALSF-1: standard 2,400-foot high intensity approach lighting system with sequenced flashers (CAT I configuration)	CAA: Clean Air Act
ALSF-2: standard 2,400-foot high intensity approach lighting system with sequenced flashers (CAT II configuration)	CalTrans: - California Department of Transportation
AOA: Aircraft Operation Area	CDFG: - California Department of Fish and Game
APE: Area of Potential Effect	CEQ: Council on Environmental Quality
APV: instrument approach procedure with vertical guidance	CFR: Code of Federal Regulation
ARC: airport reference code	CIP: capital improvement program
ARFF: aircraft rescue and fire fighting	CNEL: - Community Equivalent Noise Level
ARP: airport reference point	CO: Carbon Monoxide
ARPA: Archeological Resources Protection Act	CWA: Clean Water Act
ARTCC: air route traffic control center	CZM: Coastal Zone Management
ASDA: accelerate-stop distance available	CZMA: Coastal Zone Management Act
ASOS: automated surface observation station	DME: distance measuring equipment
	DNL: day-night noise level
	DOD: Department of Defense
	DOI: Department of the Interior
	DOT: Department of Transportation

Abbreviations

IM: inner marker	DTWL: runway weight bearing capacity of aircraft with dual-tandem type landing gear
INM: Integrated Noise Model	DWL: runway weight bearing capacity of aircraft with dual-wheel type landing gear
JD: Jurisdictional Delineation	EA: Environmental Assessment
LDA: localizer type directional aid	EDDA: Environmental Due Diligence Audit
LDA: landing distance available	EDMS: Emissions and Dispersion Modeling System
LJRL: low intensity runway edge lighting	EO: Executive Order
LMM: compass locator at ILS outer marker	EPA: Environmental Protection Agency
LORAN: long range navigation	ESA: Endangered Species Act
MALS: medium intensity approach lighting system with indicator lights	FAA: Federal Aviation Administration
MIRL: medium intensity runway edge lighting	FAR: Federal Aviation Regulation
MITL: medium intensity taxiway edge lighting	FBO: fixed base operator
MLS: microwave landing system	FEMA: Federal Emergency Management Agency
MSL: mean sea level	FICON: Federal Interagency Committee on Noise
MM: middle marker	FIRM: Flood Insurance Rate Map
MOA: military operations area	FONSI: Finding of No Significant Impact
NAAQS: National Ambient Air Quality Standards	FPPA: Farmland Protection Policy Act
NAS: National Airspace System	FR: Federal Register
NAVAID: navigational aid	FY: fiscal year
NCP: Noise Compatibility Program	GPS: global positioning system
NDB: nondirectional radio beacon	GS: glide slope
NEPA: National Environmental Policy Act	HURL: high intensity runway edge lighting
NHPA: National Historic Preservation Act	HUD: Department of Housing and Urban Development
NM: nautical mile (6,076.1 feet)	IFR: instrument flight rules (FAR Part 91)
NO₂: Nitrogen Dioxide	ILS: instrument landing system
NPDES: National Pollution Discharge Elimination System Permit	

Abbreviations

NPIAS: National Plan of Integrated Airport Systems	RNAV: area navigation
NPRM: notice of proposed rule making	ROD: Record of Decision
NRCS: National Resources Conservation Service	RPZ: runway protection zone
NRHP: National Register of Historic Places	RSA: runway safety area
NRI: Nationwide Rivers Inventory	RTR: remote transmitter/receiver
O₃: Ozone	RVR: runway visibility range
ODALS: omnidirectional approach lighting system	RVZ: runway visibility zone
OFA: object free area	SALS: short approach lighting system
OFZ: obstacle free zone	SASP: state aviation system plan
OHWM: Ordinary High Water Mark	SCS: Soil Conservation Service
OM: outer marker	SEL: sound exposure level
PAC: planning advisory committee	SHPO: State Historic Preservation Officer
PAPI: precision approach path indicator	SID: standard instrument departure
PCL: pilot-controlled lighting	SIP: State Implementation Plan
PFC: porous friction course	SM: statute mile (5,280 feet)
PFC: passenger facility charge	SO₂: Sulfur Dioxide
PIW: public information workshop	SRE: snow removal equipment
PL: Public Law	SSALF: simplified short approach lighting system with runway alignment indicator lights
PLASI: pulsating visual approach slope indicator	STAR: standard terminal arrival route
PM₁₀: Particulate Matter 10 microns or larger	SWL: runway weight bearing capacity for aircraft with single-wheel tandem type landing gear
PM_{2.5}: Particulate Matter 2.5 microns or larger	TACAN: tactical air navigational aid
POFA: precision object free area	TAF: Federal Aviation Administration (FAA) Terminal Area Forecast
PVASI: pulsating/steady visual approach slope indicator	TDZ: touchdown zone
PVC: poor visibility and ceiling	TDZE: touchdown zone elevation
RCO: remote communications outlet	THPO: Tribal Historic Preservation Officer
REIL: runway end identifier lighting	

Abbreviations

TODA: takeoff distance available
TORA: takeoff runway available
TRACON: terminal radar approach control
TSA: Transportation Security Administration
USACODE: United States Army Corps of Engineers
USDA: United States Department of Agriculture
USFWS: United States Fish and Wildlife Services
UST: Underground Storage Tank
VASI: visual approach slope indicator
VFR: visual flight rules (FAR Part 91)
VHF: very high frequency
VOC: Volatile organic compound
VOR: very high frequency omni-directional range
VORTAC: VOR and TACAN collocated
WQC: Water Quality Certificate
WUS: Waters of the United States



Appendix I

PUBLIC INVOLVEMENT

APPENDIX I

PUBLIC INVOLVEMENT

This appendix contains materials relating to the public involvement process conducted during the preparation of the Environmental Assessment (EA) and for the Draft EA.

Beginning October 13, 2010, a copy of the Draft EA was made available for public and agency review at the following locations during normal business hours:

- Wickenburg Municipal Airport, 3040 Highway 60, Wickenburg, Arizona, 85390
- Wickenburg Town Hall, 155 N Tegner Street, Suite A Wickenburg, AZ 85390
- Town of Wickenburg Library, 164 E Apache Street, Wickenburg, AZ 85390

The comment period on the contents of the Draft EA began on October 13, 2010 and extended through November 15, 2010. A Notice of Availability was published in the *Wickenburg Sun* on October 13 announcing availability of the Draft EA. A copy of the Notice is included in this appendix. Additionally, a letter was sent to the agencies contacted at the onset of the project to announce the availability of the document and request comments. One agency comment was submitted. A copy of the announcement letter, sent to those agencies listed in Appendix C, and the comment letter is included in this appendix.

INTERNET

The Draft EA was made available at <http://www.wickenburg-ea.airportstudy.com>.

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**TOWN OF WICKENBURG
NOTICE OF AVAILABILITY**

This notice replaces the Notice of Availability regarding the Wickenburg Municipal Airport Draft Environmental Assessment published on September 22, 2010. The Town of Wickenburg, Arizona, as the sponsor for the Wickenburg Municipal Airport (E25), proposes construction of an approximately 30,000 square foot mid-field aircraft parking apron and access road at E25. A Draft Environmental Assessment (Draft EA) has been prepared by the Town of Wickenburg to comply with National Environmental Policy Act (NEPA). The Federal Aviation Administration (FAA) is the *Lead Agency* under NEPA. The Draft EA was prepared in accordance with FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*, and FAA Order 1050.1E, *Environmental Impacts, Policies, and Procedures*. A copy of the Draft EA is available beginning October 13, 2010 for public review during business hours at the following locations: Wickenburg Municipal Airport, 3040 Highway 60, Wickenburg, Arizona, 85390; Town Hall, 155 N. Tegner Street, Suite A, Wickenburg, AZ 85390; Town of Wickenburg Library, 164 E. Apache Street, Wickenburg, AZ 85390. The document will also be available for public review at: <http://www.wickenburg-azairportstudy.com>

Interested persons are invited to submit comments regarding the document by mail. All written comments received will be addressed and the results will be included in the Final EA. Written comments to the Draft EA may be submitted to Coffman Associates, Attn: E25 EA, 237 N.W. Blue Parkway, Suite 100, Lee's Summit, MO 64063. Comments on the Draft EA must be received no later than 4:00 pm Mountain Standard Time, Thursday, November 15, 2010.

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

Published in The Wickenburg Sun on October 13, 2010.

**TOWN OF WICKENBURG
NOTICE OF AVAILABILITY**

STATE OF ARIZONA

County of Maricopa

Kevin Cloe, being duly sworn, upon oath, deposes and says:
That he is the Publisher of

The Wickenburg Sun

A newspaper of general circulation in the County of Maricopa
State of Arizona, published in Wickenburg, Arizona, and that
the copy hereto attached is a true copy of the advertisement as
published weekly in The Wickenburg Sun on the Dates
following:

October 13, 2010



KEVIN CLOE
PUBLISHER

Sworn to before me this 13th day of October, A.D. 2010.



Tamara Thomas
Notary Public My commission expires February 2, 2012



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