FINAL SUPPLEMENT TO THE FINAL ENVIRONMENTAL ASSESSMENT

PROPOSED MID-FIELD AIRCRAFT PARKING APRON

Wickenburg Municipal Airport,
Wickenburg, Maricopa County, Arizona

Prepared for:

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
As lead Federal Agency pursuant to the National Environmental Policy Act of 1969

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

Responsible FAA Official

January 13, 2015
Date

GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This document contains the Final Supplement to the Final Environmental Assessment (EA) for the Town of Wickenburg's proposed construction of a new Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport. This document discloses the analysis and findings of the potential impacts of an area on the airport to be used as a source of fill material for the proposed apron as well as the proposed haul route. Both the Proposed Action alternative and the No Action alternative are discussed as well as other reasonable alternatives.

BACKGROUND. The Town of Wickenburg is the owner and operator for Wickenburg Municipal Airport. In 2011, the Town proposed construction of a new aircraft parking apron to accommodate 27 aircraft. The Federal Aviation Administration (FAA) issued a Finding of No Significant Impact for the proposed project on April 12, 2011. Since that time, the Town has identified an area on the existing airport that would be able to provide the fill material needed for the proposed apron. This Supplement to the Final EA evaluates the potential environmental impacts associated with the proposed use of the new borrow area and proposed haul route. This document will supplement information already disclosed in the Final EA approved by the FAA in April 2011.

The Draft version of this Supplement was released for agency and public review on December 3, 2014. A Notice of Availability was published in *The Wickenburg Sun* on December 3, 2014, to inform the general public and other interested parties. Notice of Availability letters were also sent to resource and planning agencies previously contacted during the scoping process for the original EA. The public and agency review period ended on January 5, 2015. **Appendix D** of this final document contains a copy of the Notice of Availability as well as comments received in response to the official public and agency review.

WHAT SHOULD YOU DO? Read the Final Supplement to understand the actions that the Town of Wickenburg and FAA intend to take relative to the proposed construction of a new Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport. Copies of the document are available for inspection at at the administrative offices of Wickenburg Municipal Airport (155 N. Tegner, Suite A, Wickenburg, AZ 85390), and at the FAA's Phoenix Airports District Office (3800 N. Central Avenue, Suite 1025, 10th Floor, Phoenix, AZ 85012). The document can also be reviewed at the Wickenburg Airport website: http://www.ci.wickenburg.az.us.

WHAT HAPPENS AFTER THIS? The FAA will either issue a new Finding of No Significant Impact/Record of Decision or decide to prepare a Federal Environmental Impact Statement. The document herein represents the Final Supplement to the Final EA for the Town of Wickenburg's proposed construction of a new Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport and fulfills FAA policies and procedures relative to the *National Environmental Policy Act* and other federal requirements.

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Chapter One
PURPOSE AND NEED

1.1 INTRODUCTION

The Town of Wickenburg is the owner and operator of Wickenburg Municipal Airport, which is located approximately three miles west of the Town's central business district (**Exhibit 1A**). In 2011, the Town proposed construction of a new mid-field aircraft parking apron (proposed apron). The proposed apron would consist of an approximate 30,000 square yard (750 feet by 350 feet) aircraft parking apron located mid-field on the south side of Runway 5-23. Based on the requirements of the airport's current critical aircraft (designated as airport reference code [ARC] B-II), it is estimated that the apron would accommodate a maximum of 27 aircraft parking spaces. The proposed apron project also includes the construction of an automobile access road that would connect the existing airport access road to the proposed apron. A security gate would be used to restrict access to only those with permission to enter the south side hangar and apron areas. The proposed apron project also includes the grading of five commercial lease parcels. However, no construction on these parcels would occur as a part of the proposed apron project (**Exhibit 1B**).

The Federal Aviation Administration (FAA) issued a Finding of No Significant Impact (FONSI) for the proposed apron project on April 12, 2011 in compliance with the *National Environmental Policy Act* (NEPA) and FAA's NEPA implementing orders. The project originally planned to procure necessary fill material off the airport from another construction project. However, this materials source is no longer available. Since that time, the Town has identified a borrow area on the airport that would be used to provide the fill material needed for the proposed apron project.

This Supplement to the Final Environmental Assessment (Final EA) for Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport evaluates potential environmental impacts associ-

ated with the use of the proposed borrow area and haul route (Proposed Action). This document supplements information disclosed in the Final EA and has been prepared to aid FAA and the Town of Wickenburg in complying with various federal environmental laws and regulations that are applicable to the Proposed Action. These laws and regulations are listed in Section 2.6 of this Supplement. This chapter of the Supplement (Chapter One) describes the currently Proposed Action, identifies the purpose and need for the Proposed Action, lists associated federal actions, provides the documentation requirements and standards for this Supplement, discusses the Proposed Action implementation schedule, and outlines the Supplement's format.

1.2 PROPOSED ACTION

The Proposed Action is the use of an estimated 5.4 acres of undeveloped land located on Wickenburg Municipal Airport property, approximately 375 feet to 525 feet south of the runway centerline as a borrow area for construction material for the proposed apron project. This borrow area would be accessed from the proposed apron by an approximate 2,900 foot long (0.55 mile) haul route which follows an existing gravel and dirt road previously used for maintenance and access. Once loaded with fill material, trucks would be driven along the south shoulder of Taxiway A to return to the construction site as shown on **Exhibit 1C**. In this manner, traffic flow between the construction site and the borrow area can be managed effectively.

At the conclusion of the project, the borrow area and haul road would be stabilized with erosion control materials and/or methods determined by the project's General Construction Permit under the Arizona Pollutant Discharge Elimination System (AZPDES) program and in compliance with FAA Advisory Circular (AC) 150/5370-10F, *Standards for Specifying Construction of Airports*, *Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control* (FAA, 2011).

1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.3.1 Sponsor Purpose and Need

The purpose of the Proposed Action is to provide the airport with a suitable, cost-effective, source of fill material for the proposed apron project. The original design included importing fill material from an off-airport site. However, this materials source is no longer available. Therefore, there is a need to provide a new source of material that meets the requirements of the apron project while remaining within the project's anticipated cost and available funding.

As discussed in Section 1.3 of the Final EA for the proposed apron project, several previous airport improvements have resulted in the loss of approximately 15,900 square yards of aircraft parking apron and 40 aircraft tie-downs. As a result, the airport currently maintains a waiting list for aircraft parking.

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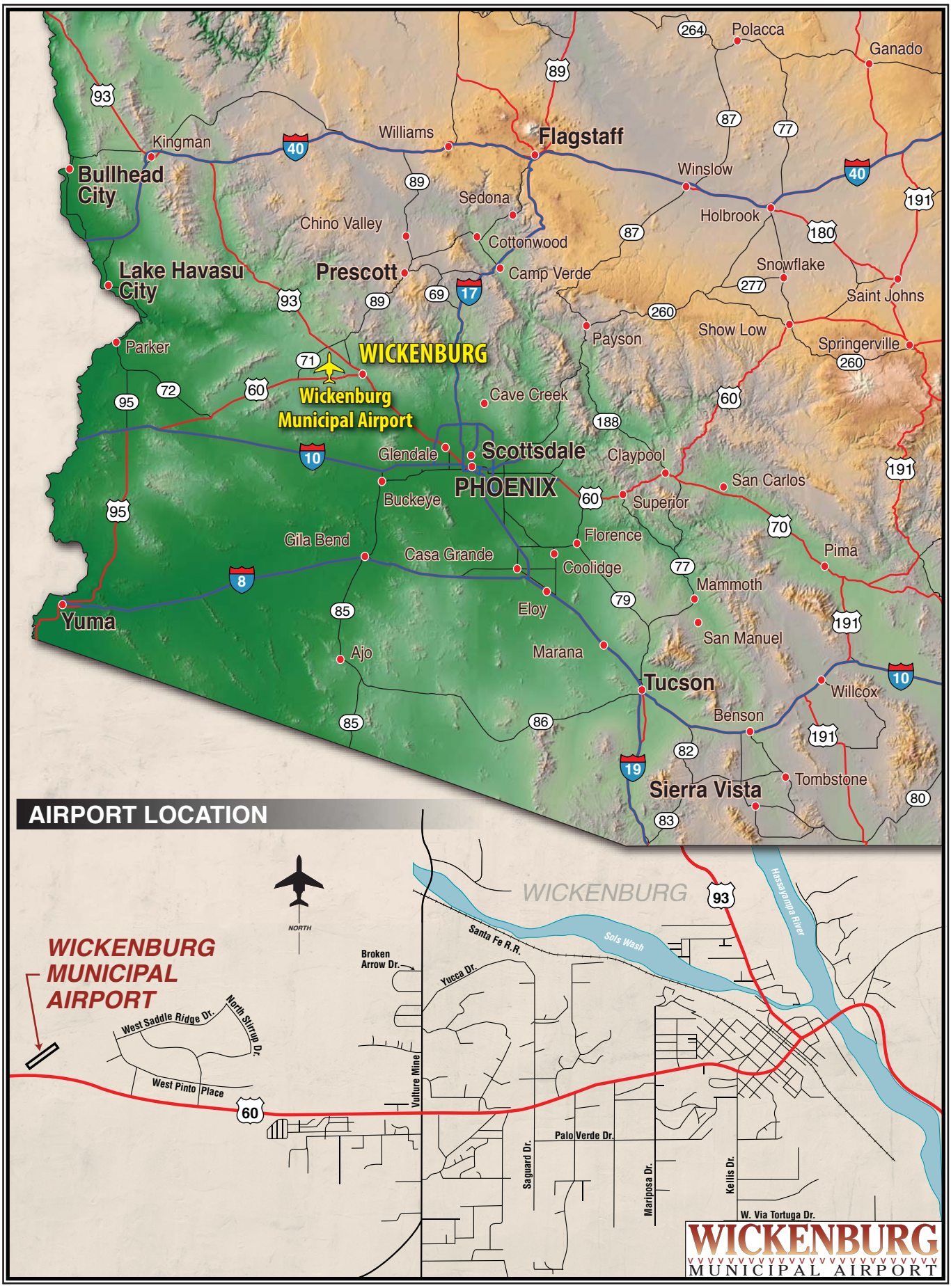

Exhibit 1A
AIRPORT LOCATION

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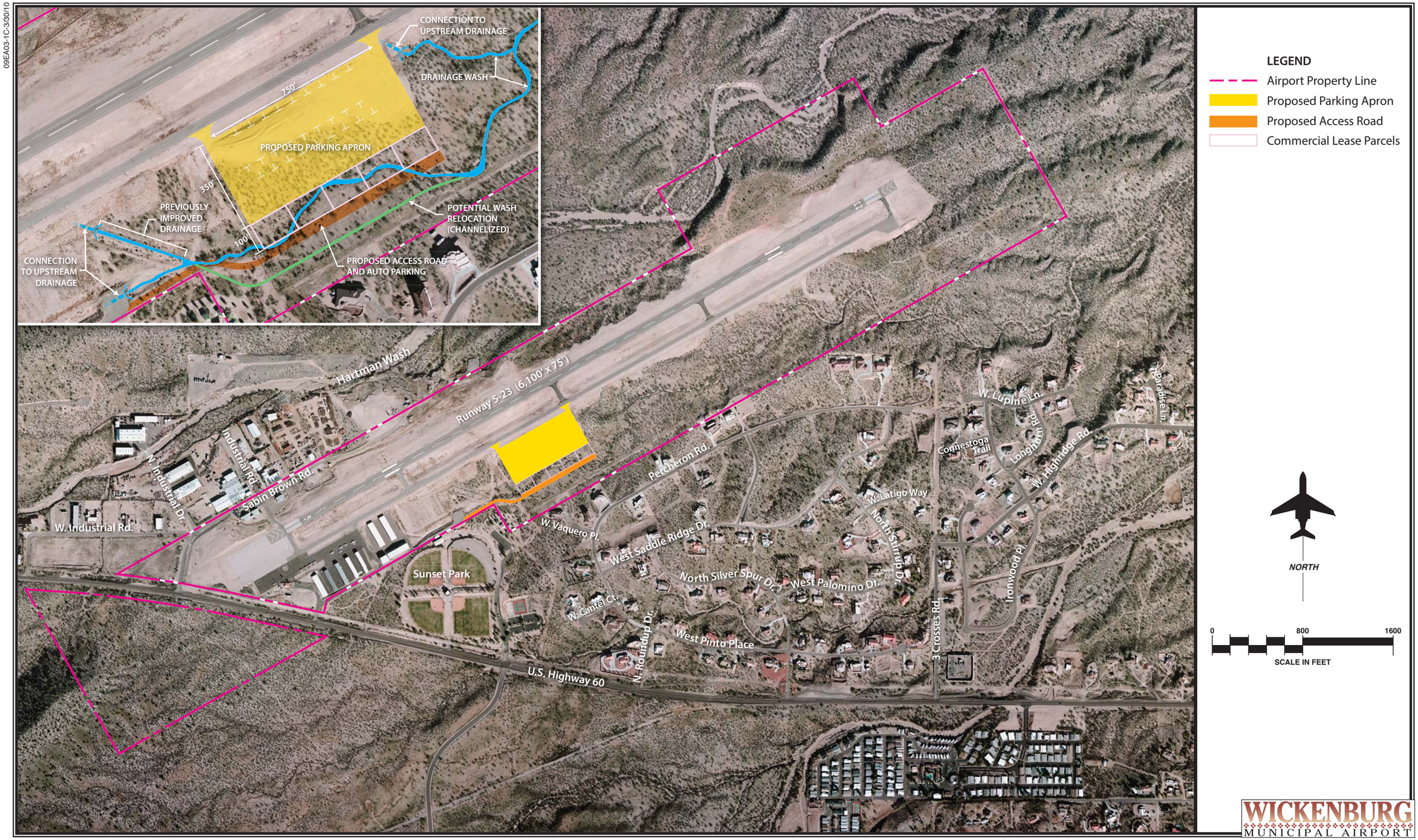

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Exhibit 1B
PROPOSED APRON PROJECT

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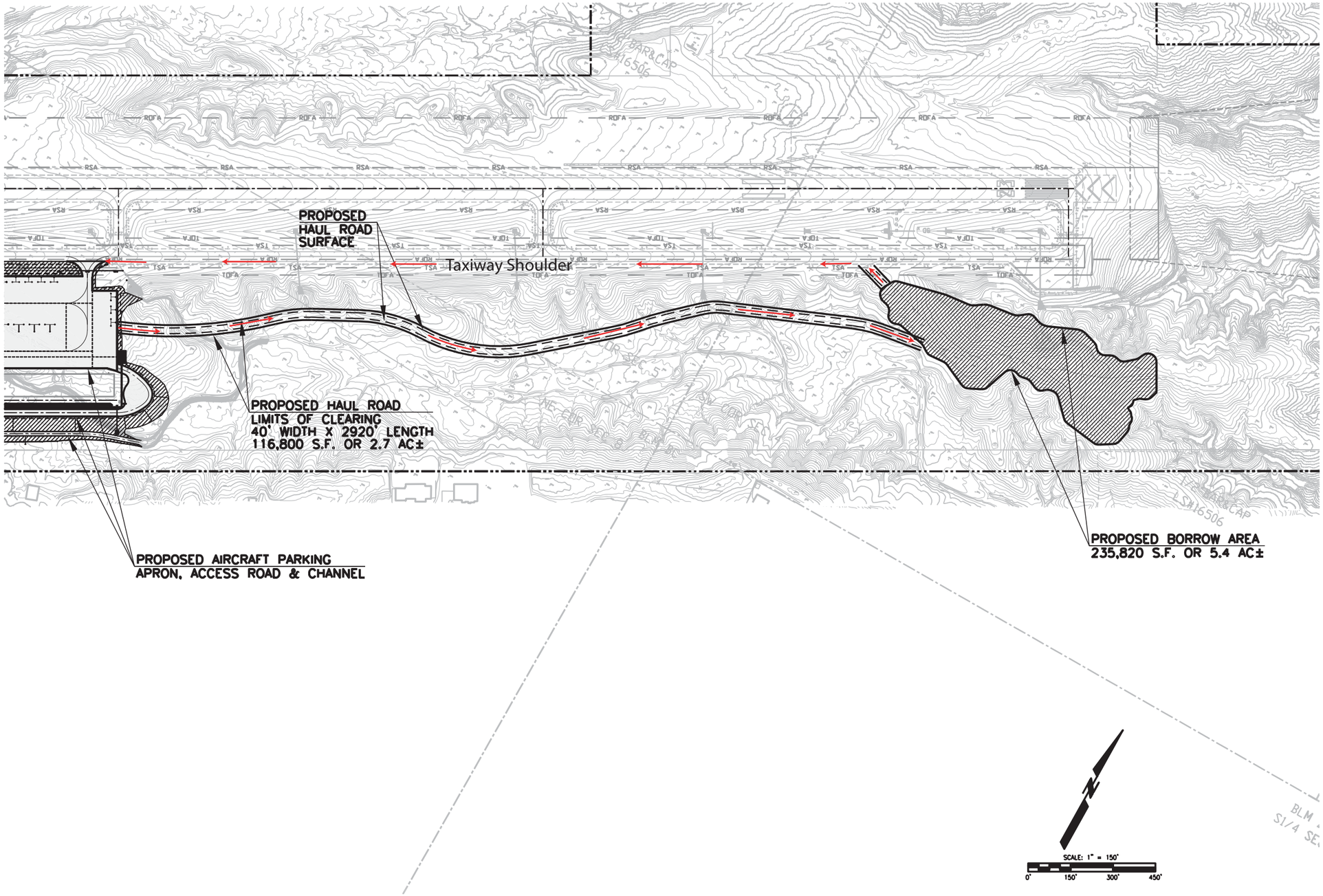

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WICKENBURG
MUNICIPAL AIRPORT

Exhibit 1C
PROPOSED ACTION

1.3.2 FAA Purpose and Need

FAA's statutory mission is to ensure the safe and efficient use of navigable airspace in the United States (U.S.). FAA must ensure that the Proposed Action does not derogate the safety of aircraft and airport operations at Wickenburg Municipal Airport. Moreover, it is the policy of FAA under Title 49 United States Code (USC) §47101(a)(6) that airport development projects provide for the protection and enhancement of natural resources and the quality of the environment of the U.S.

1.4 REQUESTED FEDERAL ACTIONS

The specific federal actions that are requested include:

- Unconditional approval of the portion of the Airport Layout Plan (ALP) that depicts the proposed apron submitted by the City of Wickenburg for Wickenburg Municipal Airport pursuant to 49 USC §§ 40103(b), 44718 and 47107(a)(16) and Title 14 Code of Federal Regulations (CFR) Part 77. The approval of the ALP is based on determinations through the aeronautical study process, regarding obstructions to navigable airspace, that the airport development proposal is acceptable from an airspace perspective.

- Approval of a Construction Safety and Phasing Plan to maintain aviation and airfield safety during construction pursuant to FAA Advisory Circular 150/5370-2F, *Operational Safety on Airports During Construction.*

1.5 DOCUMENTATION REQUIREMENTS AND STANDARDS

This Supplement has been prepared in accordance with the requirements of Section 102(2)(c) of the *National Environmental Policy Act of 1969* (Public Law [P.L.] 91-190, 42 USC §§4321 et seq.). Through NEPA, Congress requires federal agencies to consider the environmental effects of the Proposed Action and reasonable alternatives, including the No Action alternative per 40 CFR §1502.14.

The format and subject matter included within this report conform to the requirements and standards set forth by 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* (FAA, 2006, as amended; FAA, 2006).

1.6 IMPLEMENTATION TIMEFRAME

The proposed borrow area and haul route would be utilized during the construction phase of the proposed apron project. The construction of the proposed apron is expected to last three months. The Town of Wickenburg has received grant money for the proposed improvements and expects to

begin construction immediately pending the receipt of a FONSI for the borrow area and haul route.

1.7 DOCUMENT ORGANIZATION

This Supplement evaluates the potential environmental impacts of the proposed apron project's borrow area and haul route by first outlining the purpose and need for the Proposed Action (Chapter One) followed by an evaluation of alternatives (Chapter Two). An updated discussion of existing land uses and environmental resources related to the airport, and specifically the borrow area and haul route, is provided in Chapter Three; analyses of potential impacts of the Proposed Action and mitigation measures, where needed, are addressed in Chapter Four. Chapter Five contains a summary of agency coordination activities and public involvement related to the Draft Supplement, while Chapter Six contains a list of document preparers; Chapter Seven provides references and websites used in the preparation of this Supplement. Technical information, as well as documentation related to FAA consultation processes, is appended to this document.

Chapter Two
ALTERNATIVES

2.1 INTRODUCTION

The objective of the alternatives analysis is to identify various options to the Proposed Action (refer to Section 1.2). Once identified, each alternative is evaluated in terms of its ability to satisfy the purpose and need for the Proposed Action (as defined in Section 1.3), as well as its potential for an effect on the surrounding environment. The results of this evaluation determine which alternatives will be considered reasonable, thereby warranting further consideration.

In general, an alternative would not be considered reasonable if its 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. Reasonable alternatives for *National Environmental Policy Act of 1969* (NEPA) purposes include ways to achieve the stated purpose and need that are within the Sponsor's or the Federal Aviation Administration's (FAA's) purview, as well as those alternatives outside FAA's jurisdiction.

The President's Council on Environmental Quality (CEQ) regulations for implementing NEPA require that federal agencies perform the following tasks (Title 40 Code of Federal Regulations [CFR] §1502.14):

- Rigorously explore and objectively evaluate all reasonable alternatives and, for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated;

- Devote substantial treatment to each alternative considered in detail, including the Proposed Action, so that reviewers may evaluate their comparative merits;

- Include reasonable alternatives not within the jurisdiction of the lead agency;

- Include the alternative of No Action;

- Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference; and

- Include appropriate mitigation measures not already included in the Proposed Action or alternatives.

As stated in FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *National Environmental Policy Act* (NEPA) *Implementing Instructions for Airport Projects*, FAA allows alternatives to be eliminated from further consideration when they do not fulfill the purpose and need for the action or cannot be reasonably implemented.

2.2 ALTERNATIVES SCREENING CRITERIA

Based on the stated purpose and need for the Proposed Action identified in Section 1.3, as well as preliminary environmental and cost analyses, a screening process was formulated for an evaluation of potential alternatives. The following criteria were used when considering each alternative (**Exhibit 2A**):

1. Does the alternative meet the Sponsor's purpose and need to provide the airport with a suitable source of material for the proposed apron project?

2. Does the alternative meet the Sponsor's purpose and need to provide the airport with a cost-effective source of material for the proposed apron project?

3. Does the alternative minimize impacts on airport safety and operations?

4. Would the alternative minimize impacts on known environmental constraints and resources?

2.3 ALTERNATIVES EVALUATED BUT NOT CARRIED FORWARD FOR FURTHER ANALYSIS

Several alternatives considered as part of this Supplement to the Final Environmental Assessment (Final EA) to Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport have not been carried forward for further analysis because they did not meet the stated criteria listed in Section 2.2. These alternatives are: 1) import fill from an off-airport borrow area; 2)

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ALTERNATIVES SCREENING PROCESS

STEP 1

Does the alternative meet the Sponsor's purpose and need to provide the airport with a suitable source of material for the proposed apron project?

NO → Eliminated from further consideration

YES ↓

STEP 2

Does the alternative meet the Sponsor's purpose and need to provide the airport with a cost-effective source of material for the proposed apron project?

NO → Eliminated from further consideration

YES ↓

STEP 3

Does the alternative minimize impacts on airport safety and operations?

NO → Eliminated from further consideration

YES ↓

STEP 4

Would the alternative minimize impacts on known environmental constraints and resources?

NO → Eliminated from further consideration

YES ↓

ENVIRONMENTAL ASSESSMENT

Retain for detailed analysis of environmental impacts within Chapter Four, Environmental Consequences and Mitigation of this EA.

WICKENBURG MUNICIPAL AIRPORT

Exhibit 2A
ALTERNATIVES SCREENING PROCESS

provide an on-airport borrow area located north of Runway 5-23; 3) provide an on-airport borrow area located east of Runway 5-23; or 4) provide an on-airport borrow area between the proposed apron project and the preferred borrow area discussed in Section 2.4.1. These alternatives are described in more detail below.

2.3.1 Import Fill from an Off-Airport Borrow Area

The airport originally planned to use an off-airport source of fill material from a local construction project; this material is no longer available. It may be possible for the contractor to purchase suitable fill material from other off-airport sources. Preliminary cost estimates were prepared by the project engineer to determine the preferred course of action.

Based on these estimates, if a suitable import materials source was found within six miles of the airport, the cost to import the needed material would exceed the cost of the on-airport borrow area by more than $500,000. If an import materials source was not found within a six-mile radius of the airport, a suitable source could be located as far as 30 miles from the project site. In this case, the cost to import the needed material would exceed the cost of the on-airport borrow area by more than $1,000,000. Therefore, this alternative does not meet Criterion #2.

In addition, emissions from construction trips between the proposed apron project and an off-airport borrow area would be greater than those that would occur with the Proposed Action alternative. Thus, this alternative also does not meet Criterion #4 as it would not minimize air quality impacts related to the project.

Since this alternative does not meet the alternatives selection criteria, it was not carried forward for further analysis.

2.3.2 On-Airport Borrow Areas Located Elsewhere on the Airport

There are other potential locations on the airport to use as borrow sources for the proposed apron project other than the area preferred by the Sponsor. These areas are located north of Runway 5-23, east of Runway 5-23, or between the apron project site and the preferred borrow area south of the runway. However, the airport has several environmental and safety constraints that have been taken into consideration when selecting the preferred location.

The alternative area north of Runway 5-23 is adjacent to the 100-year floodplain associated with Hartman Wash near the Runway 23 end; Hartman Wash and ephemeral washes draining into it also contain potential waters of the United States (U.S.), which are protected through Section 404 of the *Clean Water Act*. The haul route would need to go around the east end of Runway 5-23 through its approach Runway Protection Zone (RPZ) and would cross several washes east of the runway end that are also potential waters of the U.S. Therefore, this location does not meet Criterion #3 to minimize impacts on airport safety and operations or Criterion #4 to minimize impacts to environmental constraints and resources.

The area east of Runway 5-23 is located primarily within the approach RPZ for the Runway 23 end; this area also contains several washes that are potential waters of the U.S. Therefore, this alternative location does not meet Criterion #3 to minimize impacts on airport safety and operations or Criterion #4 to minimize impacts to environmental constraints and resources.

Finally, the area between the apron project site and the preferred borrow area is located outside of all RPZs and Taxiway A's Object Free Area (OFA). However, it has a wash (Wash A in Figure 3, Appendix D, Final EA) that is known to contain waters of the U.S. Therefore, this alternative does not meet Criterion #4.

Since none of the potential alternative on-airport borrow areas meet the alternatives selection criteria, they were not carried forward for further analysis.

2.4 ALTERNATIVES GIVEN FURTHER CONSIDERATION WITHIN THIS SUPPLEMENT

2.4.1 On-Airport Borrow Area South of Runway 5-23 (Proposed Action)

The preferred alternative is the Proposed Action described in Section 1.2 and shown in Exhibit 1C. This alternative is an on-airport borrow area located approximately 0.5 mile east of the proposed apron project site, just south of Runway 5-23. It is located outside of the safety areas associated with the runway and taxiway system and provides a minimum 75-foot buffer from Wash A, which is protected as waters of the U.S. under Section 404 of the *Clean Water Act*. However, its haul road might require some disturbance within Wash A-1 (see Figure 3, Appendix D, Final EA). The environmental impacts of this alternative and its associated haul route are analyzed further in Chapter Four of this Supplement.

2.4.2 No Action Alternative

The No Action alternative would not provide a borrow source for the proposed apron project. This alternative does not meet the stated purpose and need for the project (i.e., it does not meet Criteria #1 and 2 as identified in Section 2.2 of this Supplement). In addition, it would prevent the proposed apron project from meeting its stated purpose and need as well (see Section 1.3, Final EA) since the proposed apron project cannot be constructed without a source of fill material. The No Action alternative of not constructing the proposed apron was previously considered in the Final EA.

The No Action alternative would not impact airport safety and operations or sensitive environmental constraints and resources.

2.5 SUMMARY OF THE ALTERNATIVES SCREENING PROCESS

Based on the alternatives screening process, as summarized in **Table 2A** and detailed in Sections 2.2, 2.3 and 2.4, the Sponsor's preferred alternative is an on-airport borrow area located south of the Runway 23 end (see Section 2.4.1 above). This alternative meets the stated purpose and need of the Proposed Action to obtain a suitable, cost-effective, source of fill material for the proposed apron project. It also minimizes potential impacts to airport safety, operations, and sensitive environmental constraints and resources.

TABLE 2A
Summary of Alternatives Screening Process
Wickenburg Municipal Airport

Alternative	*Does the alternative meet these criteria?*				
	# 1	# 2	# 3	#4	Retain for analysis?
Alternatives Eliminated From Further Consideration:					
Import Fill from Off-Airport Borrow Area	Yes	No	Yes	No	No
On-Airport Borrow Area – North of Runway 5-23	Maybe*	Yes	No	No	No
On-Airport Borrow Area – East of Runway 5-23	Maybe*	Yes	No	No	No
On-Airport Borrow Area – Between the Proposed Apron Project Site and the Preferred Borrow Area	Maybe*	Yes	Yes	No	No
Alternatives Carried Forward for Further Analysis:					
On-Airport Borrow Area -South of Runway 5-23 (Proposed Action Alternative)	Yes	Yes	Yes	Yes	Yes
No Action Alternative	No	No	Yes	Yes	Yes**

Criteria:
1. Does the alternative meet the Sponsor's purpose and need to provide the airport with a suitable source of material for the proposed apron project?
2. Does the alternative meet the Sponsor's purpose and need to provide the airport with a cost-effective source of material for the proposed apron project?
3. Does the alternative minimize impacts on airport safety and operations?
4. Would the alternative minimize impacts on known environmental constraints and resources?

* These alternate areas have not been tested to ascertain the suitability of the source as fill material.
** Per 40 CFR §1502.14(d), the No Action alternative must be retained for further analysis.

2.6 LISTING OF APPLICABLE FEDERAL LAWS AND REGULATIONS

Statutory or regulatory requirements applicable to the Proposed Action 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 Capacity Expansion Act of 1990
Aviation Safety and Noise Abatement Act of 1979
Clean Air Act of 1977, as amended

Clean Water Act of 1977, as amended
Endangered Species Act of 1973
Executive Order 11990 – Protection of Wetlands
FAA Modernization and Reform Act of 2012
Federal Aviation Act of 1958, as amended (recodified as Subtitle VII, Title 49 United States Code [USC] "Aviation Programs" §40101 et seq.)
Fish and Wildlife Coordination Act
Land and Water Conservation Fund Act
Migratory Bird Treaty Act of 1918
National Environmental Policy Act of 1969
National Historic Preservation Act of 1966
Noise Control Act of 1972
Policy on lands, wildlife and waterfowl refuges, and historic sites (formerly known as the *Department of Transportation Act of 1966)*
President's CEQ Guidelines (40 CFR 1500-1508)
Water Pollution Control Act of 1972, as amended by the *Clean Water Act of 1977*
Water Quality Act of 1987

Chapter Three
AFFECTED ENVIRONMENT

The purpose of this chapter is to identify or update background information that describes the existing environment of Wickenburg Municipal Airport and its environs, specifically as it relates to the proposed borrow area and haul route for the airport's proposed mid-field aircraft parking apron (proposed apron). The baseline year for identifying existing conditions in this chapter is generally 2014. However, socioeconomic conditions are based on the 2010 United States (U.S.) census and existing noise contours are based on 2012 aviation operations.

The project study area for the analysis contained in this Supplement to the Final Environmental Assessment (Final EA) Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport is generally the 5.4-acre proposed borrow area and approximately one mile of haul routes between the proposed apron site and the borrow area. The project study area and its specific elements are shown in Exhibits 1C and 4A.

Study areas for land use compatibility, air and water quality, and cumulative impact analyses are broader in scope, depending on the impact category involved. For example, air quality impacts in this Supplement are discussed in the context of Maricopa County, while water quality impacts are considered in the context of the Hassayampa watershed. However, the general study area used to assess potential land use compatibility and cumulative impact is land within one mile from the proposed borrow area. When the impact area for cumulative impacts is larger than the study area defined in the preceding sentence, the cumulative impact study area is specified within the analysis contained in Chapter Four.

3.1 AIRPORT BACKGROUND AND FACILITIES

There have been no new improvements at the airport since the airport's facilities were described in the Final EA (see Exhibit 3A, Final EA).

The area of the airport that contains the proposed borrow area and new haul road is currently undeveloped property located between Taxiway A and the Runway 23 end's hold apron and the airport's eastern perimeter fence (**Exhibit 3A**). This area of the airport lies outside of all safety areas at the airport and contains several dirt roads/paths. The shoulder of Taxiway A would also be used as a part of the haul route between the borrow area and the proposed apron project. This shoulder is approximately 30 feet wide and graded.

3.2 LAND USE

3.2.1 Existing Land Use

The Proposed Action's proposed borrow area is located on the southeastern portion of the airport. There are approximately 18 single-family houses along the perimeter streets of a residential neighborhood located directly southeast of the airport (Saddle Ridge West subdivision). These homes are situated at distances ranging from approximately 450 feet to 1,500 feet from the proposed borrow area and haul route. The homes located along Percheron Road are at elevations higher (5 to 30 feet) than the proposed haul road and borrow area, while homes located along West Lupine Lane are roughly the same elevation as the borrow area. See **Exhibit 3A**.

3.2.2 Future Land Use

An updated General Plan was adopted by Town Council on April 1, 2013 and approved by the voters on August 27, 2013. The area located immediately southeast of the airport is designated as Single Family Low Density (0-2 du/ac); north of the residential neighborhood and east of the airport is an area designated as Employment/Industrial (**Exhibit 3B**). The airport itself is still designated as Public Facility.

Based on the updated General Plan, no significant changes to land uses adjacent to the southeastern part of the airport are anticipated to occur in the future. The area is developed as a single-family, large-lot residential neighborhood. A few lots may still be open for development with additional single-family homes.

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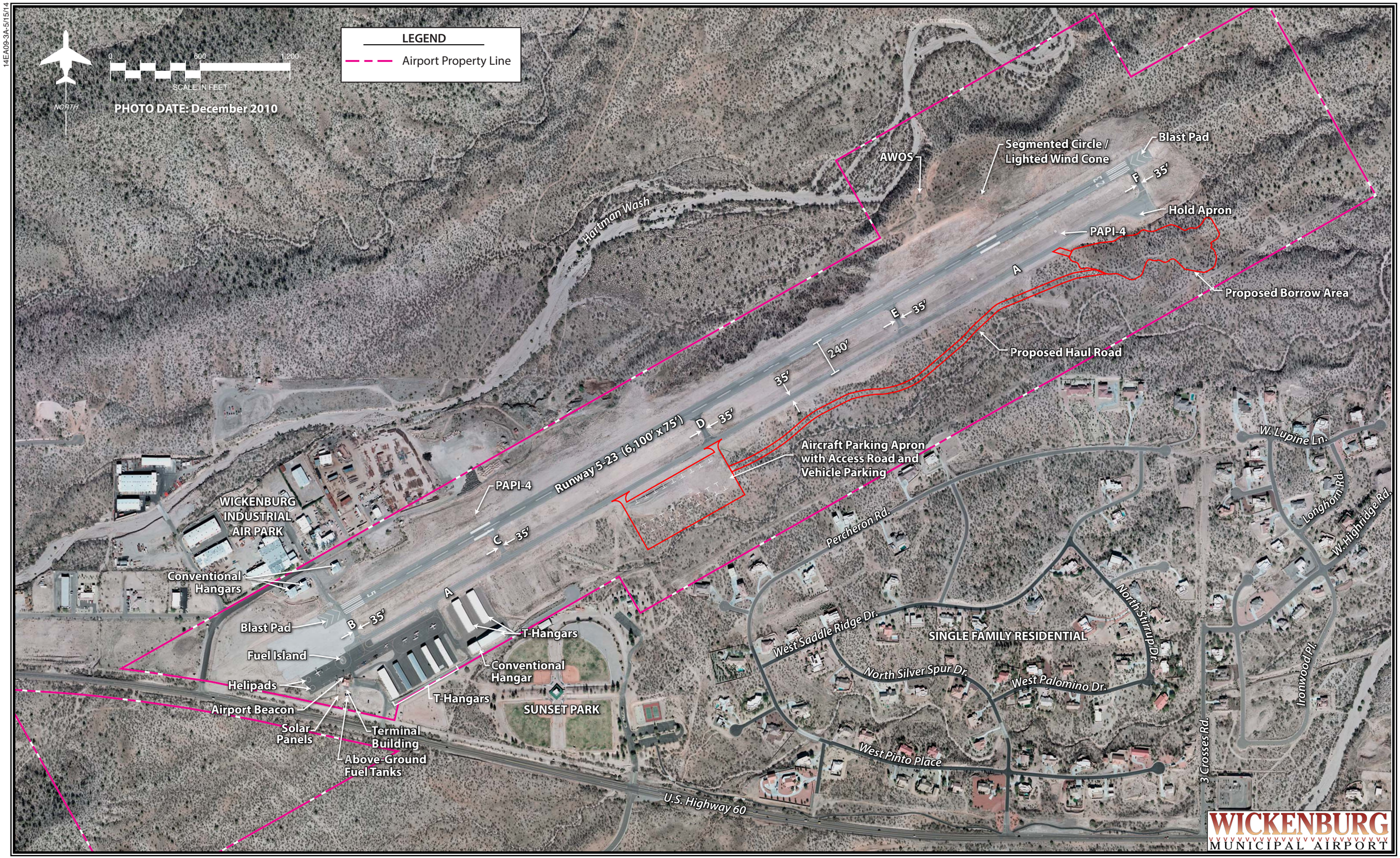

Exhibit 3A
EXISTING LAND USE

14EA09-3B-5/14/14

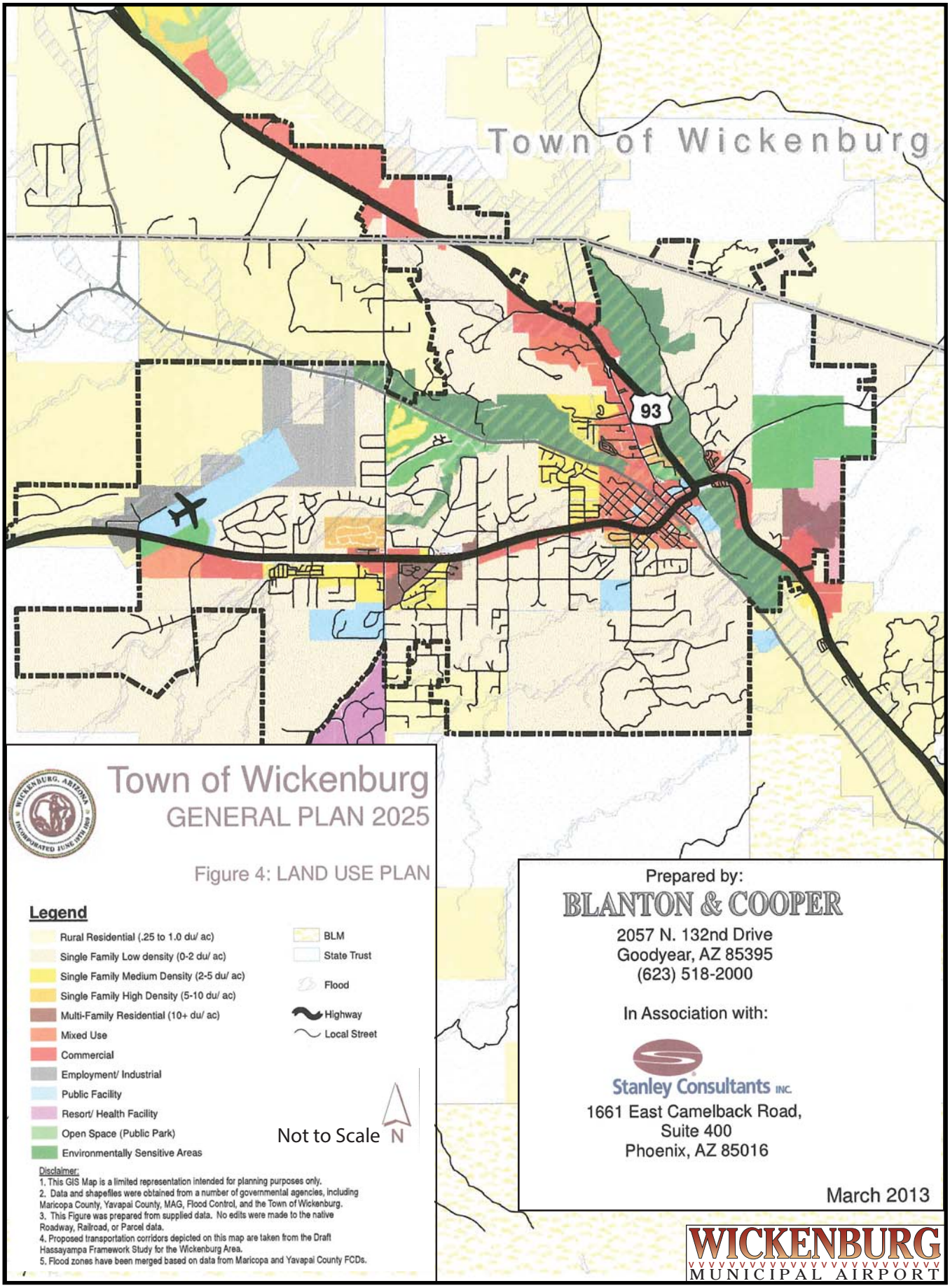

Exhibit 3B
FUTURE LAND USE MAP

3.2.3 Land Use Planning Policies

Height and Hazard Zoning

The Town of Wickenburg's Zoning Ordinance, Section 14-21-7C contains height regulations that apply to development near the airport. Building heights within 500 feet of the runway centerline are limited to 20 feet for a distance of 1,000 feet from the end of the existing or proposed runway.

Public Airport Disclosure Map

In accordance with Arizona Revised Statute (A.R.S.) 28-8486, public disclosure maps are intended to assist property owners and prospective property owners with determining if their property is within a public airport's noise impact area or within an aircraft operational area (defined by the traffic pattern airspace). The Town of Wickenburg's adopted public disclosure map remains unchanged from the map shown in the Final EA (Exhibit 3D, Final EA).

3.3 EXISTING ENVIRONMENT

This section provides an update to the Final EA's background information on the existing natural and cultural environment within and surrounding the Wickenburg Airport, and focuses specifically on the proposed borrow area and haul route, as appropriate. Sources of this information include additional field surveys of the proposed borrow area and haul route, published available literature, and internet research.

Environmental resources (as described in Appendix A of Federal Aviation Administration's [FAA] Order 1050.1E, *Environmental Impacts: Policies and Procedures*) which are not located within the project area include: Coastal Resources, Farmlands; Hazardous Materials; and Wild and Scenic Rivers.

3.3.1 Natural Resources

Air Quality/Greenhouse Gases and Climate

No changes have occurred to ambient air quality since the Final EA. The airport is located in a portion of Maricopa County that is an attainment area for all criteria pollutants as defined by the U.S. Environmental Protection Agency (EPA) (U.S. EPA, 2013; MAG, 2013).

FAA Order 1050.1E, Change 1, Guidance Memo #3 requires a discussion of greenhouse gases (GHGs) and climate. GHGs, such as water vapor (H_2O) and carbon dioxide (CO_2), can trap heat in the earth's atmosphere and are both naturally occurring and anthropogenic (man-made). Research has shown that there is a direct correlation between fuel combustion and GHG emissions. In terms of U.S. contribution, the General Accounting Office (GAO) (2009) reports that "domestic aviation contributes about 3 percent of total carbon dioxide emissions, according to

EPA data," compared with other industrial sources, including the remainder of the transportation sector (20 percent) and power generation (41 percent). The International Civil Aviation Organization (ICAO) estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic (man-made) GHG emissions globally (Melrose, 2010). Climate change due to GHG emissions is a global phenomenon, so the affected environment is the global climate.[1]

The scientific community is continuing efforts to better understand the impact of aviation emissions on the global atmosphere. The FAA is leading and participating in a number of initiatives intended to clarify the role that commercial aviation plays in GHG and climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (e.g., the National Aeronautics and Space Administration [NASA], National Oceanic and Atmospheric Administration [NOAA], EPA, and Department of Energy [DOE]), has developed the Aviation Climate Change Research Initiative (ACCRI) in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions. FAA also funds the Partnership for Air Transportation Noise & Emissions Reduction (PARTNER) Center of Excellence research initiative to quantify the effects of aircraft exhaust and contrails on global and U.S. climate and atmospheric composition. Similar research topics are being examined at the international level by the ICAO (Maurice and Lee, 2007).

Fish, Wildlife, and Plants

A field survey of the Proposed Action's proposed borrow area and haul route was conducted in May 2014 to evaluate the potential for federally listed or other protected species to occur within the survey area. The field survey findings are documented in a technical report attached to this Supplement (**Appendix A**). Based on the field survey, the area is vegetated with species typical of the Arizona Upland subdivision of the Sonoran Desertscrub biotic community (SWCA, 2014). Dominant vegetation in the upland portions of the proposed borrow area and haul route includes creosote bush and velvet mesquite. Less common species include canotia, triangle-leaf bursage, ratany, barrel cactus, and fluffgrass, desert broom, flatcrown buckwheat, and globemallow.

Xeroriparian vegetation exists along an ephemeral wash that would be crossed by the proposed haul road. This wash, known as A-1 in the Final EA, contains many of the same upland species as the rest of the project area, but also includes catclaw acacia, blue paloverde, and yellow paloverde. Nonnative species observed within the proposed borrow area and haul route include Mediterranean grass and red brome. There are no wetlands located within the proposed borrow area and haul route. In addition, no agaves, saguaro, aquatic habitats (including stock ponds), broadleaf deciduous riparian vegetation communities, or potential bat roost sites occur in the project area.

[1] As explained by the U.S. EPA, "greenhouse gases, once emitted, become well mixed in the atmosphere, meaning U.S. emissions can affect not only the U.S. population and environment but other regions of the world as well; likewise, emissions in other countries can affect the United States." U.S. EPA, Climate Change Division, Office of Atmospheric Programs. *Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 2-3*, 2009.

Table 3A identifies species listed by the U.S. Fish and Wildlife Service (USFWS) under the *Endangered Species Act* that are known to occur in Maricopa County. None of these species are likely to occur within the project area due to a lack of suitable habitat. Based on Arizona Game and Fish Department's online Heritage Data Management System database, there are no special status species occurrences or designated critical habitats within three miles of the airport (**Appendix A**).

TABLE 3A
Federally Listed Species
Maricopa County, Arizona

Common Name	Status	Habitat	Habitat in Project Area?
Birds			
California Least Tern	Endangered	Open, bare or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems.	No
Mexican spotted owl	Threatened	Nests in canyons and dense forests with multilayered foliage structure.	No
Southwestern willow Flycatcher	Endangered	Cottonwood/willow and tamarisk vegetation communities along rivers and streams.	No
Yellow-billed cuckoo	Proposed Threatened	Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries).	No
Yuma clapper rail	Endangered	Fresh water and brackish marshes.	No
Fishes			
Colorado pikeminnow	EXPN, XN	Warm, swift, turbid rivers. Prefers eddies and pools.	No
Desert pupfish	Endangered	Shallow springs, small streams, and marshes. Tolerates saline and warm water.	No
Gila topminnow	Endangered	Small streams, springs, and cienegas vegetated shallows.	No
Razorback sucker	Endangered	Riverine and lacustrine areas, generally not in fast moving water and may use backwaters.	No
Spikedace	Endangered		No
Woundfin	EXPN, XN	Inhabits shallow, warm, turbid, fast-flowing water. Tolerates high salinity.	No
Flowering Plants			
Acuna cactus	Endangered	Well drained knolls and gravel ridges in Sonoran desertscrub.	No
Arizona cliffrose	Endangered	White limestone soils derived from tertiary lakebed deposits.	No
Arizona hedgehog cactus	Endangered	Plants are found on dacite or granite bedrock, open slopes, in narrow cracks between boulders, and in the understory of shrubs in the ecotone between Madrean Evergreen Woodland and Interior Chapparal. Elevation ranges from about 3,200-5,200 feet.	No
Nichol's Turk Head cactus	Endangered	Occurs in unshaded microsites within Sonoran desertscrub on dissected alluvial fans at the foot of limestone mountains and on inclined terraces and saddles on limestone mountainsides. Elevation ranges from 2,400 to 4,100 feet.	No

TABLE 3A (Continued)
Federally Listed Species
Maricopa County, Arizona

Common Name	Status	Habitat	Habitat in Project Area?
Mammals			
Lesser long-nosed bat	Endangered	Desert scrub habitat with agave and columnar cacti present as food plants.	No
Ocelot	Endangered	Desert scrub communities in Arizona; dense, almost impenetrable thickets in Texas; and humid tropical forests, coastal mangroves, and swampy savannahs in areas south of the U.S. Prey includes rabbits, small rodents, and birds. Universal component is presence of dense cover.	No
Sonoran pronghorn	Endangered	Broad intermountain alluvial valleys with creosote-bursage and palo verde-mixed cacti associations.	No
Candidate Species			
Roundtail chub	Candidate	Cool to warm waters of rivers and streams, often occupy the deepest pools and eddies of large streams.	No
Sonoran desert tortoise	Candidate	Primarily rocky (often steep) hillsides and bajadas of Mohave and Sonoran desertscrub, but may encroach into desert grassland, juniper woodland, interior chaparral habitats, and even pine communities. Washes and bottoms may be used in dispersal.	No
Sprague's pipit	Candidate	Strong preference to native grasslands with vegetation of intermediate height and lacking woody shrubs.	No
Tucson shovel-nosed snake	Candidate	Sonoran desertscrub; associated with soft, sandy soils having sparse gravel.	No

EXPN, XN = experimental non-essential population. A species listed as experimental and non-essential. Experimental, nonessential populations of endangered species (e.g., red wolf) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

Sources: USFWS websites. Available at: http://ecos.fws.gov/ipac/ and http://www.fws.gov/southwest/es/arizona/Threatened.htm, accessed May 2014.

Floodplains

The Federal Emergency Management Agency's Flood Insurance Rate Map (FIRM) for the airport area was updated in October 2013. According to FIRM No. 04013C0310L, the project area is not located within the 100-year floodplain (FEMA, 2013).

Water Quality

There are no changes to area water quality since the Final EA. The Wickenburg area is located within the Hassayampa watershed; the Hassayampa River itself is located approximately three miles east of the airport. There are two segments of the Hassayampa River (11 miles from its headwaters to Copper Creek and 2.3 miles from the Buckeye Canal to the Gila River) that are on the U.S. EPA's *Clean Water Act* (CWA) Section 303(d) List of Impaired Waters (reporting year

2008).[2] The lower segment of the River (i.e., Buckeye Canal to the Gila River), is also on the draft 2010 State of Arizona's Impaired Waters list.[3] Neither of these Hassayampa River segments is close to the airport or its environs.

Wetlands and Waters of the U.S.

Known waters of the U.S. at the airport are shown in **Exhibit 3C**. The proposed borrow area and haul route for the Proposed Action has been selected to avoid washes that could be considered waters of the U.S. under the CWA. There is one area just east of the proposed apron area where the haul route would cross a wash over which the U.S. Army Corps of Engineers has claimed federal jurisdiction (see Appendix D, Final EA). This wash was identified as part of a preliminary jurisdictional delineation completed in conjunction with the EA on the proposed apron project and is depicted in the Final EA on Exhibit 3E.

3.3.2 *Department of Transportation Act*, Section 4(f) and *Land and Water Conservation Fund Act*, Section 6(f) Resources

Department of Transportation Act, Section 4(f)

No changes in Section 4(f) resources have occurred since the Final EA. The closest known Section 4(f) resource to the airport is Sunset Park. This is a city-owned park located southwest of the proposed apron project that includes four baseball/softball fields, tennis courts, play areas, and picnic ramadas.

Land and Water Conservation Fund Act, Section 6(f)

Section 6(f) of the *Land and Water Conservation Fund Act* establishes a land and water conservation fund to assist local, state, and federal agencies in meeting the demand for present and future outdoor recreation sites through grants for land acquisition, park amenities, or other park development costs. No such funds have been applied to any lands included within the airport boundaries.

3.3.3 Historical, Architectural, Archaeological, and Cultural Resources

A cultural resources pedestrian survey of an approximate 8-acre proposed borrow area and haul route was conducted in May 2014. Based on this survey and a related record search, only one isolated occurrence (IO) and no cultural resources sites were located within the surveyed area (SWCA, 2014). The field survey findings are documented in a technical report attached to this Supplement (**Appendix B**).

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[2] http://iaspub.epa.gov/tmdl_waters10/attains_watershed.control?p_huc=15070103&p_cycle=&p_report_type=T , accessed May 2014.

[3] http://www.azdeq.gov/environ/water/assessment/download/303d_list.pdf, accessed May 2014.

3.3.4 Noise

No changes to the airport's operations or ambient noise environment have occurred since the Final EA; see **Exhibit 3D** for the existing (2012) noise contours for the airport. These noise contours were developed as part of the inventory efforts conducted for the airport's recently completed Airport Master Plan (Town of Wickenburg, 2014). The airport's existing day-night sound exposure level (DNL) 65 decibel (dB) noise contour is contained completely within the airport's property. **Exhibit 3D** also shows the arrival, departure, and touch-and-go flight tracks on which the noise analysis was based.

3.3.5 Socioeconomic Resources

Updated information regarding the demographic characteristics of Wickenburg, Maricopa County, and the State of Arizona was obtained from the 2010 U.S. census and the 2008-2012 American Community Survey (**Tables 3B** and **3C**). The 2012 population and income estimates are the most current available based on the 2010 census data. Based on this information, population continues to grow in Wickenburg, the County, and the State. The Town of Wickenburg and the County have a slightly higher per capita income than the State overall. The median family income in Wickenburg is lower that the State and County overall and there is a higher percentage of individuals in Wickenburg that live below the poverty level.

TABLE 3B
Population Trends (2010 – 2012)

Year	Town of Wickenburg	Maricopa County	State of Arizona
2010 Census[a]	6,363	3,817,117	6,392,017
2010[b]	6,381	3,823,563	6,410,810
2011[b]	6,436	3,868,525	6,467,315
2012[b]	6,582	3,942,169	6,553,255

a = As of April 1
b = Estimates as of July 1
Source: U.S. Census Bureau, Population Division. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2012. Available at: http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none, accessed May 2014.

TABLE 3C
Demographic Information

Income	Town of Wickenburg	Maricopa County	State of Arizona
Median Family Income	$51,273	$64,841	$59,563
Per Capita Income	$27,238	$27,552	$25,571
Individuals below Poverty Level	16.7%	11.6%	12.4%

Source: U.S. Census Bureau, 2008-2012 American Community Survey. DP03 - Selected Economic Characteristics. Available at: http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml#none, accessed May 2014.

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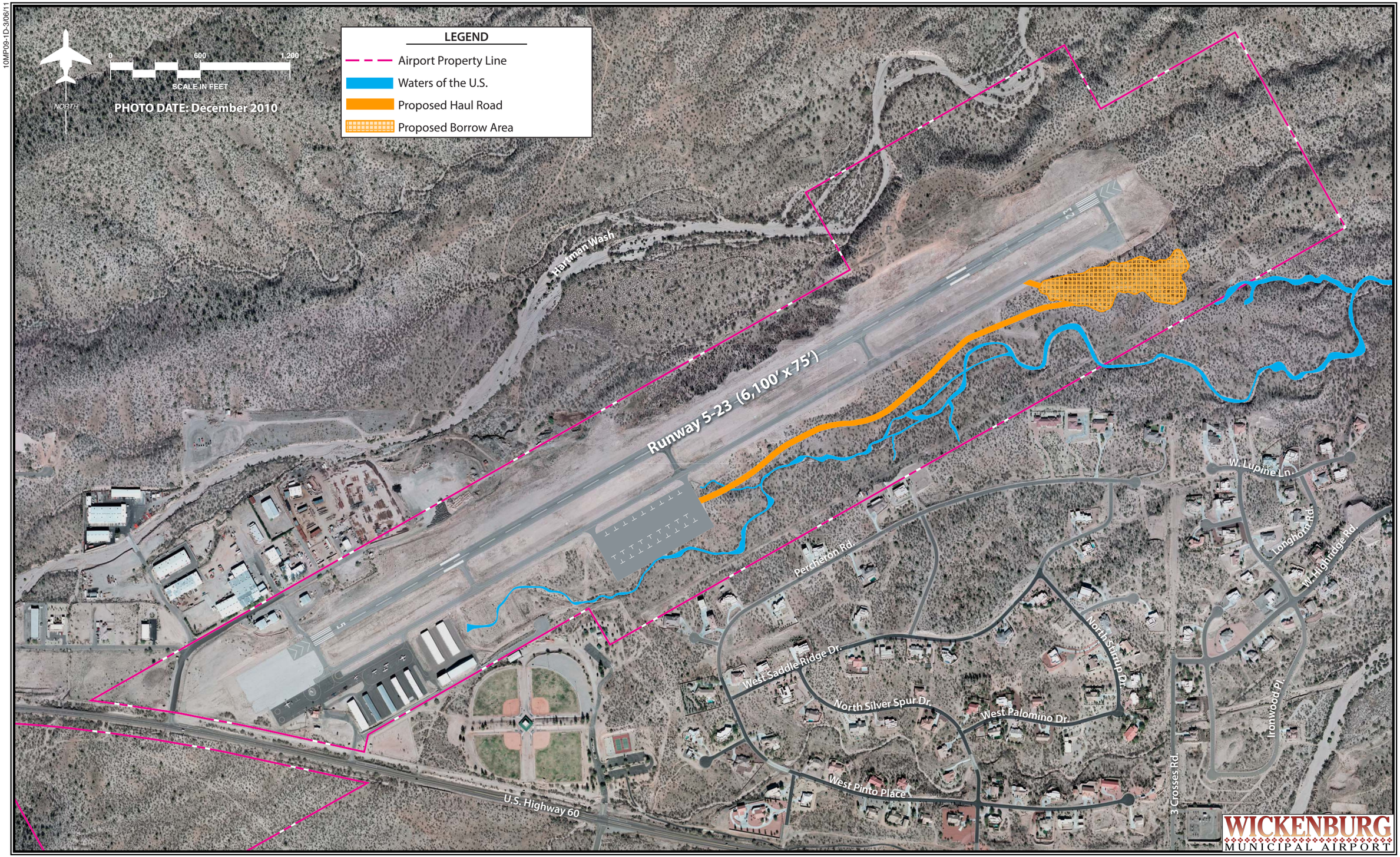

Exhibit 3C
WATERS OF THE U.S.

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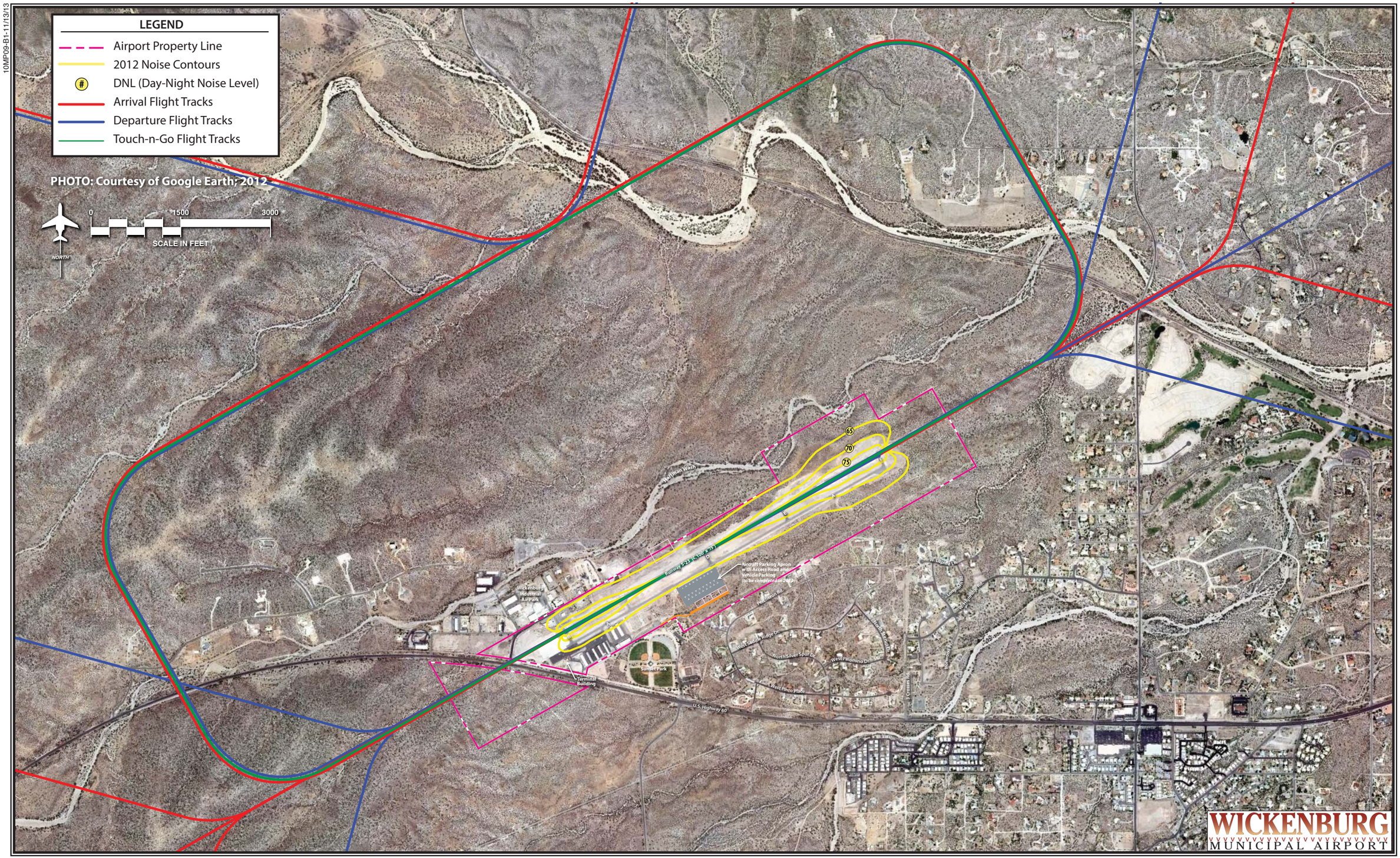


Exhibit 3D
EXISTING (2012) NOISE CONTOURS
AND FLIGHT TRACKS

The percentage of persons living below the poverty level and the percentage of minority populations within census tracts that include, or are near, the airport are shown on **Exhibit 3E**. The percentage of households below the poverty rate ranges from 12 to 21 percent; minority populations in areas surrounding the airport are below 20 percent. Thus, there is not a disproportionate number of low-income or minority populations located in proximity to the airport.

3.4 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

Actions used to assess potential cumulative impacts are projects within one mile of the airport. Thus, past, present, and reasonably foreseeable future actions which have been evaluated in this Supplement are those within a one-mile radius of the airport that have occurred or would occur from five years prior to the Proposed Action to five years after the Proposed Action, as listed below.

3.4.1 On-Airport Development

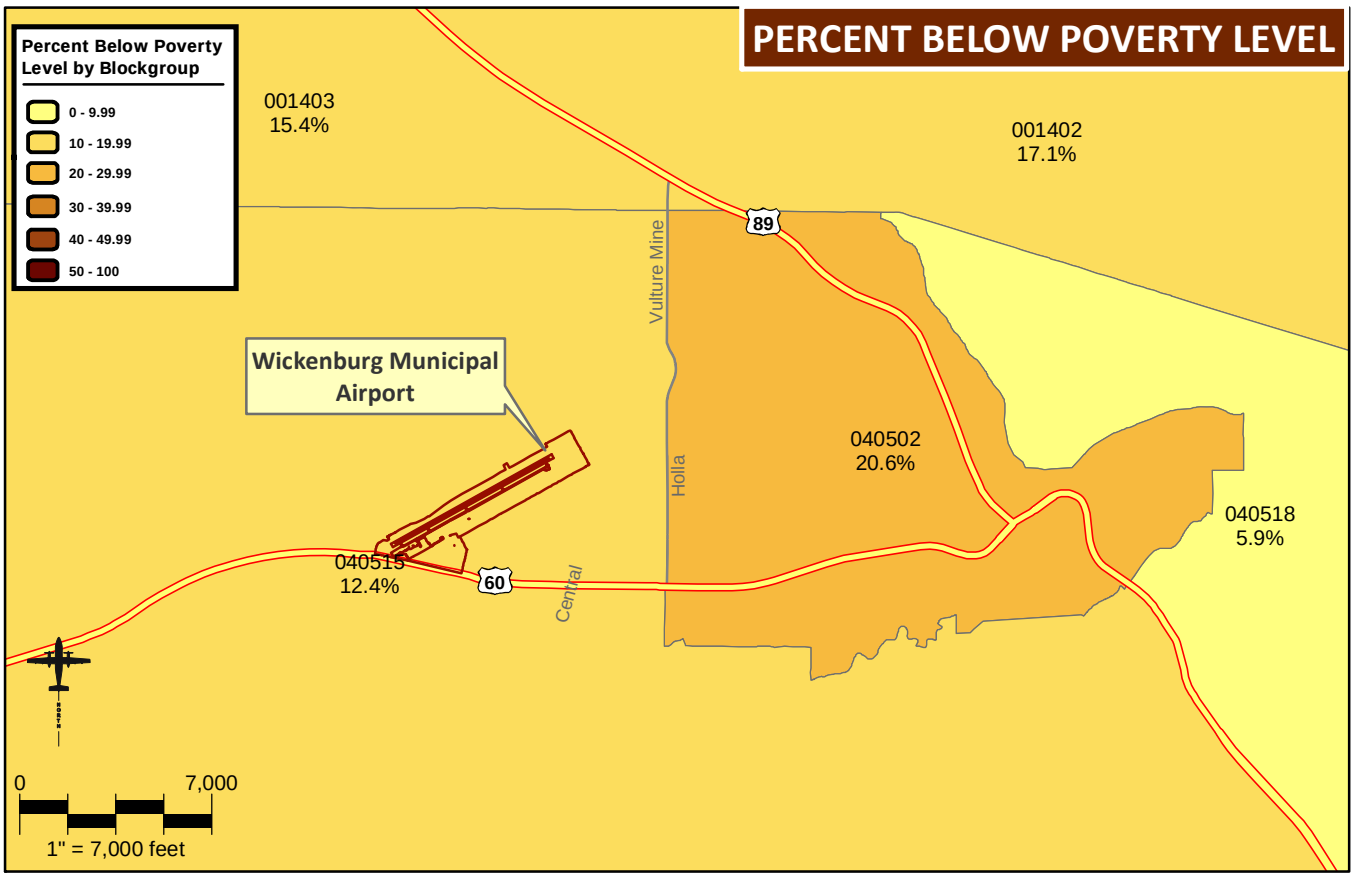
There has been no development at the airport in the past five years (other than pavement maintenance of the runway and taxiway system), and there are no projects besides the proposed apron project planned for the year 2014.

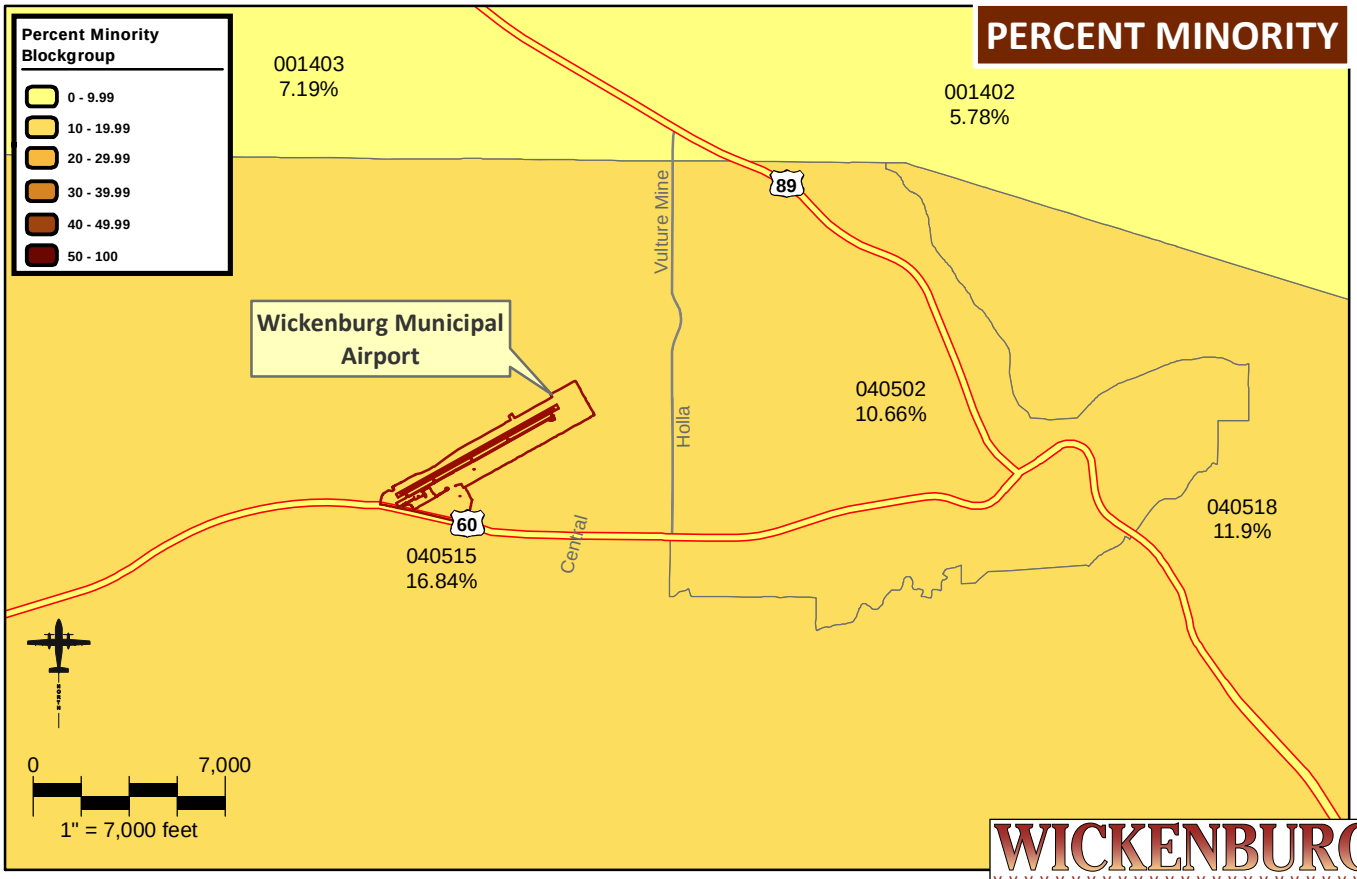
According to the Airport Capital Improvement Program (ACIP), the following airport development projects are anticipated to occur during the years from 2015 through 2019:

- Construct an expanded T-Hangar development area; programmed for 2016.
- Construct a wash rack; programmed for 2016.
- Install omni-directional approach lights (ODALs) to Runway 23 end; programmed for 2017.
- Upgrade the medium intensity runway and taxiway lighting with light-emitting diode (LED) lights; programmed for 2018.
- Remove three hangars located within the runway's Object Free Area (OFA); programmed for 2019.

3.4.2 Off-Airport Development

The Town of Wickenburg was contacted to obtain a list of past, present, and reasonably foreseeable future actions within one mile of the Wickenburg Airport. Based on its response, there are no past, present, or reasonably foreseeable future actions within one mile of the airport that would need to be evaluated as part of the cumulative analysis for this Supplement (Boyle, 2014).





WICKENBURG MUNICIPAL AIRPORT

Source: Census Tract data is from the 2010 US Census Bureau, SF3 tables and American Community Survey.
Census Tract shapefiles are from US Census Bureau.

Tract Number / Percentage

Exhibit 3E
LOW INCOME AND MINORITY POPULATIONS

Chapter Four
ENVIRONMENTAL CONSEQUENCES AND MITIGATION

4.1 INTRODUCTION

This Supplement to the Final Environmental Assessment (Final EA) at Wickenburg Municipal Airport addresses only the changes to the proposed mid-field aircraft parking apron project (proposed apron) since the adoption of the Final EA and the issuance of its Finding of No Significant Impact (FONSI). Thus, the Proposed Action alternative considered in this Supplement is use of an on-airport borrow area for fill material for the proposed apron and the haul route that would be used to move the material.

The No Action alternative is to not provide a source of fill material, which would also mean not constructing the apron project. The No Action alternative provides an evaluation of future environmental conditions if the Proposed Action is not undertaken. This alternative is the same No Action alternative that was discussed in the Final EA, since the proposed apron cannot be constructed without a source of fill.

The following sections contain impact analyses for those categories defined within Appendix A of Federal Aviation Administration's (FAA) Order 1050.1E, *Environmental Impacts: Policies and Procedures* and Table 7-1 of Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* that have changed from the analyses presented in the Final EA. 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 are also discussed, as appropriate.

4.2 RESOURCES THE PROPOSED ACTION WOULD NOT AFFECT

According to the Final EA, the following resources are not located within the proposed apron area and would not be affected by the project:

- Coastal resources;
- Department of Transportation Section 4(f) properties;
- Farmland;
- Floodplains; and
- Wild and scenic rivers.

In addition, resource categories that were evaluated in the Final EA and determined to have no potential to exceed federal thresholds included:

- Air Quality (operational);
- Compatible Land Use;
- Hazardous Materials, Pollution Prevention, and Solid Waste;
- Light Emissions and Visual Impacts;
- Natural Resources and Energy Supply;
- Noise (operational);
- Secondary (Induced) Impacts; and
- Socioeconomic Impacts Environmental Justice, and Children's Environmental Health and Safety.

These conclusions of the Final EA remain accurate, even if the Proposed Action alternative (on-airport borrow area and haul route) is implemented, for the following reasons:

1. The proposed borrow area and haul route is located within the airport's boundaries. No long term or permanent impacts to areas off the airport would occur.

2. There would be no change to the number of operations or the airport's future activities as a result of the temporary use of an area for borrow material and a haul route.

3. The airport itself would only be disturbed for a period of approximately three months. (Impacts related to this construction period are addressed in Section 4.3.1 below.)

4.3 RESOURCES THE PROPOSED ACTION MAY POTENTIALLY AFFECT

Those resource categories with a potential to have additional or different impacts than those addressed in the Final EA due to the current Proposed Action alternative include:

- Construction impacts;
- Fish, wildlife, and plants;
- Greenhouse gases (GHGs);
- Historical, architectural, archaeological, and cultural resources;
- Water quality;
- Wetlands; and
- Cumulative impacts.

The above potential environmental effects have, therefore, been re-evaluated to include the effects of the proposed on-airport borrow area and haul route and are presented in the following subsections.

In accordance with the Council on Environmental Quality (CEQ) regulations, as contained within Title 40 Code of Federal Regulations (CFR) Part 1508, the environmental consequences of the above impact categories 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 farther 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. Past, present, and reasonably foreseeable future actions which will be evaluated were described within Chapter Three, Section 3.4 of this Supplement and are generally those that would occur within a five-year time frame and within a one-mile radius from the Proposed Action.

4.3.1 Construction Impacts

Analysis Methodology and Significance Thresholds. 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 as follows:

- A potentially significant air quality impact is shown by the project or action exceeding one or more of the National Ambient Air Quality Standards (NAAQS) for any of the time periods analyzed (FAA Order 1050.1E, Appendix A, Paragraph 2.3).

- A significant noise increase occurs when the Proposed Action alternative would cause noise-sensitive areas to experience an increase in noise measured as Day-Night Equivalency Level (DNL) by 1.5 decibel (dB) or more at or above DNL 65 dB sound exposure when compared to the No Action alternative for the same time frame (FAA Order 1050.1E, Appendix A, Paragraph 14.3).

- Per FAA Order 1050.1E, Appendix A, Paragraph 17.3, water quality regulations and issuance of permits will normally identify any deficiencies in a proposed development with regard to water quality or any additional information necessary to make judgments on the significance of impacts. Difficulties in complying with applicable permits, such as permits under the Arizona Pollutant Discharge Elimination System (AZPDES) program or the *Clean Water Act* (CWA) Section 404, would typically indicate a potential for significant water quality impacts.

4.3.1.1 Proposed Action Alternative

Air Quality. Although located within an area of Maricopa County that is in attainment for all NAAQS criteria pollutants, impacts related to the construction phase of the proposed apron have been discussed previously in the Final EA for the purpose of disclosure. Therefore, a construction-related emissions inventory was prepared for the Proposed Action alternative using the United States (U.S.) Environmental Protection Agency's (EPA) NONROAD and MOVES emissions models.[1] These are the most current FAA-approved emission models available to use for the calculation of the Proposed Action alternative's potential construction-related emissions.

The analysis of construction emissions in the Final EA included not only the use of construction vehicles for a period of three months, but evaluated the emissions related to a haul route located off the airport that was much longer than what would occur under the Proposed Action alternative. **Table 4A** compares the construction emissions estimated to occur with the longer (off-airport) haul route with the construction emissions estimated to occur with the current Proposed Action alternative. The Proposed Action alternative would result in slightly fewer emissions related to carbon monoxide (CO), volatile organic compounds (VOC), and oxides of nitrogen (NOx) than was identified in the Final EA. Particulate matter (PM) and sulfur oxides (SOx) are expected to remain the same. Therefore, no new impacts related to short term air quality would occur and no significance thresholds would be exceeded.

[1] The NONROAD model estimates emissions related to non-highway approved vehicles, such as heavy construction equipment; the MOVES model evaluates highway vehicle emissions, such as those from dump trucks or light-duty work trucks. Neither model calculates lead emissions; therefore, an assessment of these impacts cannot be made. Additionally, ozone emissions are not calculated by the models. However, VOCs are a precursor to ozone. VOCs combine with sunlight and NO_x to form ozone. Therefore, VOC emissions are used to estimate ozone emissions.

TABLE 4A
Construction Emissions of Previous and Currently Proposed Borrow Area and Haul Route (Tons per Year)

Pollutant	General Conformity *De Minimus* Thresholds[1]	2012 Proposed Apron Project[2]	2014 Proposed Action Alternative[3]
CO	100	0.58	0.54
VOC	100	0.09	0.08
NOx	100	1.24	1.23
SOx	None	0.03	0.03
PM_{10}	100	0.08	0.08
$PM_{2.5}$	100	0.08	0.08

[1] Defined in 40 CFR 93 §153 for maintenance areas outside of a transport region.
[2] NONROAD and MOBILE6.2 were used for the previous (2012) estimated emission levels.
[3] NONROAD and MOVES were used for the currently proposed (2014) estimated emission levels.

Source: Coffman Associates' technical analysis (refer to **Appendix C**).

Noise. The Final EA discussed short term construction noise impacts to the adjacent Saddle Ridge West subdivision and Sunset Park. The proposed on-airport borrow area and haul route would be located farther from Sunset Park than the proposed apron project. Therefore, no new impacts to the park are anticipated.

The borrow area and haul route would be closer to approximately 18 homes located on the far eastern edge of the Saddle Ridge West subdivision. These homes are located approximately 450 feet to 1,500 feet from the proposed borrow area and haul route. Construction-related noise results from the use of construction equipment and can vary depending on the type of construction equipment being used during each phase of construction. The use of the proposed borrow area and haul road would include earthwork/grading and the use of construction vehicles. **Table 4B** provides average noise levels at a distance of 50 feet from a construction site based on these types of construction equipment.

There are no noise-sensitive areas located within the airport's 65 dB DNL sound contour (refer to Exhibit 3D); the airport's 65 and higher DNL sound contours are contained on the airport property itself. The closest noise-sensitive land uses to the project area are residences located approximately 450 to 1,500 feet away. At this distance, no significant noise impacts related to construction would occur and no significance thresholds related to short term noise would be exceeded.

TABLE 4B
Construction Operations, Equipment Types, and Their Noise Levels

Equipment	Typical Noise Level (dBA)* 50 feet from Source
Backhoe	80
Compactor	82
Dozer	85
Generator	81
Grader	85
Loader	85
Paver	89
Roller	74
Scarifier	83
Scraper	89
Shovel	82
Truck	88

Source: FHWA 2006.

*The decibel A filter roughly corresponds to the inverse of the *40 dB* (at *1 kHz*) equal-loudness curve for the human ear. Using the dBA-filter, the sound level meter is less sensitive to very high and very low frequencies. Measurements made with this scale are expressed as dBA.

Water Quality. The proposed construction activities would have the potential to result in temporary water quality impacts, particularly suspended sediments, during and shortly after precipitation events. Through CWA's Section 402, National Pollutant Discharge Elimination System (NPDES) permit program, coverage is required for any point source discharge to surface waters of the U.S., including storm water discharges associated with construction activity. In Arizona, except for Indian Country, the NPDES program is administered as the AZPDES.

Construction activities (clearing, grading, or excavating) that disturb one acre or more require coverage under the AZPDES 2013 Construction General Permit (CGP). Thus, the use of the proposed borrow area and haul road would be required to comply with the AZPDES program by filing a Notice of Intent and by incorporating any required measures (See Mitigation Measures below).

Due to the requirement to comply with the AZPDES 2013 CGP, including preparation of a project-specific storm water pollution prevention plan (SWPPP), no short term water quality impacts would occur as a result of the Proposed Action alternative and no significance thresholds would be exceeded.

Mitigation Measures. All construction activity related to the Proposed Action alternative would be required to comply with Arizona emission and dust control regulations as stipulated in Arizona Administrative Code R18-2-604 and 605 and R18-2-804.

The airport would be required to comply with applicable Town of Wickenburg noise regulations. According to Section 10-11-1D of the Town Code, regardless of the source or activity causing it, excessive noise is restricted from 10: 00 p.m. to 5:00 a.m.

All construction activity related to the Proposed Action alternative would be required to comply with the AZPDES 2013 CGP. Required measures could include temporary actions to control water pollution, soil erosion, and siltation, such as the use of berms, fiber mats, gravels, mulches, and/or slope drains, or other erosion control methods identified in a project-specific SWPPP.

The airport would also follow FAA Advisory Circular (AC) 150/5370-10F, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control* (FAA, 2011) by implementing best management practices (BMPs) such as those listed below, as appropriate.

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 and 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

4.3.1.2 No Action Alternative

The No Action alternative would not result in any construction-related impacts. Under this alternative, the airport would not be used as a source of borrow material and thus no dust, construction vehicular emissions, noise, or water quality impacts would occur.

4.3.2 Fish, Wildlife, and Plants

Analysis Methodology and Significance Thresholds. FAA Order 1050.1E, Appendix A, Paragraph 8.3 states that a significant impact to federally listed threatened and endangered species would occur when USFWS determines that the Proposed Action would be likely to jeopardize the continued existence of the species in question, or would result in the destruction or adverse modification of federally designated critical habitat in the affected area. Section 7 of the *Endangered Species Act* (ESA), as amended, applies to federal agency actions and sets forth require-

ments for consultation to determine if a Proposed Action "may affect" a federally endangered or threatened species.

Lesser impacts including impacts on non-listed species could also constitute a significant impact. For example, the federal *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 *Fish and Wildlife Coordination Act* requires that agencies consult with the State wildlife agencies and USFWS 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.

4.3.2.1 Proposed Action Alternative

A field reconnaissance of the proposed borrow area and haul route was conducted on May 9, 2014, to evaluate onsite 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). The resultant biological assessment (BA) is included in this Supplement as **Appendix A**.

Based on the field survey and associated research, there are no special-status species likely to occur within the study area. The proposed borrow area and haul route is clearly beyond the known geographic or elevational range of any potential special-status species, including any federally listed species under the *Endangered Species Act*, or the area does not contain vegetation or landscape features known to support these species, or both. Therefore, FAA has made a determination of "no effect" under Section 7 of the *Endangered Species Act* and formal consultation with USFWS is not required for this project.

4.3.2.2 No Action Alternative

The No Action alternative would not result in any ground disturbance or construction activity and, thus, would not disrupt any vegetation, natural habitats, or wildlife, including federally protected species.

4.3.3 Greenhouse Gases and Climate

<u>Analysis Methodology and Significance Thresholds</u>. Although there are no federal standards for aviation-related GHG emissions, it is well-established that GHG emissions can affect climate.[2] The CEQ has indicated that climate should be considered in NEPA analysis. As noted by the CEQ, "it is not currently useful for the NEPA analysis to attempt to link specific climatological

[2] See *Massachusetts v. E.P.A.,* 549 U.S. 407, 508-10, 521-23, decided April 2, 2007.

changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand."[3]

4.3.3.1 Proposed Action Alternative

The Proposed Action alternative would not change the amount of aircraft activity at the airport when compared to the No Project alternative; therefore, there would not be a change in the amount of operational GHGs as a result of the proposed borrow area and haul route.

As is shown in **Table 4A**, the current Proposed Action alternative would result in fewer emissions during the construction of the proposed apron than was identified in the Final EA. Therefore, no new impacts related to short term GHG emissions would occur.

4.3.3.2 No Action Alternative

The No Action alternative would not result in any operational or construction-related GHGs.

4.3.4 Historical, Architectural, Archaeological, and Cultural Resources

Analysis Methodology and Significance Thresholds. Determination of a project's environmental impact to historic and cultural resources is made under guidance contained in the *National Historic Preservation Act of 1966* (NHPA) and the *Archaeological and Historic Preservation Act of 1974* (AHPA).

Section 106 of the NHPA, as amended, requires federal agencies to take into account the effects of their undertakings on historic properties and determine if any properties in, or eligible for inclusion into, the National Register of Historic Properties (NRHP) are present in the area. In addition, it affords the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the Advisory Council. Its current regulations, *Protection on Historic Properties,* were amended on July 1, 2001 (36 CFR Part 800) and incorporate the statutory changes mandated by the 1992 amendments to the NHPA.

The AHPA describes the process that occurs when consultation with resource agencies indicate that there may be an impact on significant scientific, prehistoric, historic, archaeological, or paleontological resources. The process provides for the preparation of a professional resource survey of the area. Should the survey identify significant resources, the National Register process described above is followed. Should the survey be inconclusive, a determination is made on whether it is appropriate to provide a commitment to halt construction if resources are un-

[3] CEQ. *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions,* 2010. Available at: http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

covered in order for a qualified professional to evaluate their importance and provide for data recovery, as necessary.

Exhibit 4A shows the Area of Potential Effect (APE) for the Proposed Action alternative. Since there would not be significant noise or visual impacts created by the Proposed Action alternative, the direct and indirect APE is the same.

4.3.4.1 Proposed Action Alternative

Based on the results of a pedestrian field survey of the proposed borrow area and haul route, one isolated occurrence (IO) and no cultural resource sites were identified (**Appendix B**). Therefore, FAA's previous Final EA finding of "no historic properties affected" remains true for the Proposed Action alternative. FAA communicated this finding to the State Historic Preservation Office (SHPO) on October 21, 2014, and the SHPO responded on October 31, 2014, with its concurrence. A copy of the letter and SHPO's concurrence is included in **Appendix B**.

As previously stated in the Final EA, if previously undocumented cultural resources are identified during ground-disturbing activities, all work in the immediate vicinity of the discovery shall stop until the find can be evaluated by a professional archaeologist. If further onsite investigation is required, all subsequent recommendations shall conform to Section 106 of the NHPA.

4.3.4.2 No Action Alternative

The No Action alternative would not result in any ground disturbance or construction activity and, thus, would not disrupt any cultural resources, including federally protected historic properties.

4.3.5 Water Quality

<u>Analysis Methodology and Significance Thresholds</u>. Per FAA Order 1050.1E, Appendix A, Paragraph 17.3, water quality regulations and issuance of permits will normally identify any deficiencies in a proposed development with regard to water quality or any additional information necessary to make judgments on the significance of impacts. Difficulties in complying with applicable permits, such as those under the AZPDES program or CWA Section 404 permits, would typically indicate a potential for significant water quality impacts.

4.3.5.1 Proposed Action Alternative

No long term impacts to water quality would occur as a result of the Proposed Action alternative and no water quality thresholds would be exceeded. At the conclusion of project, the bor-

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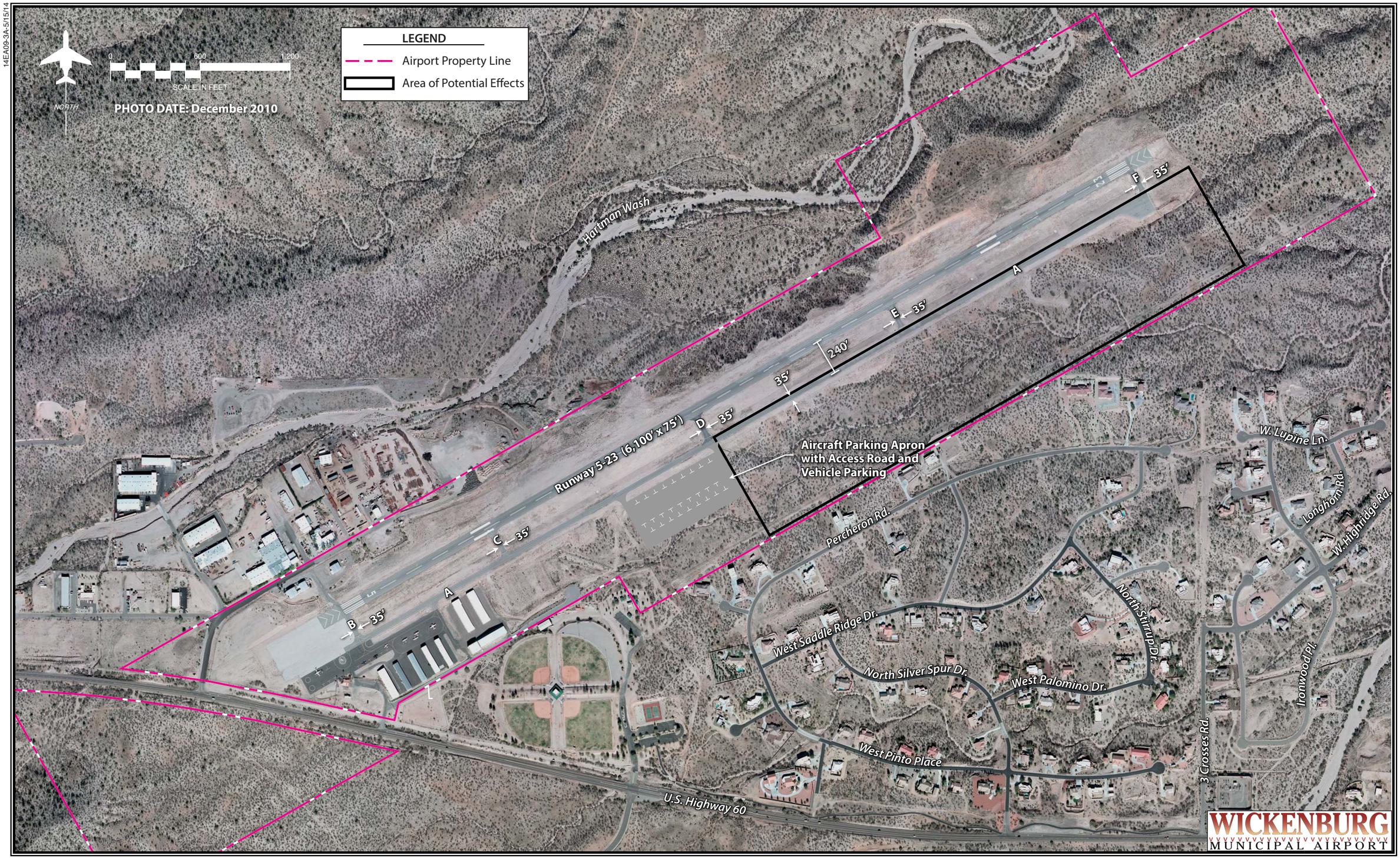

Exhibit 4A
AREA OF POTENTIAL EFFECTS

row area and haul road would be stabilized with erosion control materials and/or methods determined by the project's General Construction Permit under the State's AZPDES program.

As discussed in Section 4.3.2.1, construction activities (clearing, grading, or excavating) that disturb one acre or more require coverage under the AZPDES 2013 GCP. Thus, the use of the proposed borrow area and haul road would be required to comply with the AZPDES program by filing a Notice of Intent and by incorporating any required measures. These measures could include temporary actions to control water pollution, soil erosion, and siltation such as the use of berms, fiber mats, gravels, mulches, and/or slope drains, or other erosion control methods identified in a project-specific SWPPP.

It should also be noted that an AZPDES 2010 Multi-Sector General Permit (MSGP) is required for the long term operation of the airport, as discussed in Sections 4.3.5.1 and 4.3.12.1 of the Final EA. The airport is classified as a Sector S industry by the Arizona Department of Environmental Quality (ADEQ). ADEQ's previous 2000 MSGP was superseded in 2010. The airport will need to file a new Notice of Intent and updated airport-wide SWPPP with ADEQ to comply with the State's new 2010 MSGP and its AZPDES program. Conditions of the 2010 MSGP would be applicable to all new development at the airport.

4.3.5.2 No Action Alternative

The No Action alternative would not result in any ground disturbance or construction activity and, thus, would not result in any potential impact to water quality.

4.3.6 Wetlands and Waters of the U.S.

Analysis Methodology and Significance Thresholds. Certain drainages (both natural and human-made) come under the purview of the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA; wetlands are also protected. According to FAA Order 1050.1E, Appendix A, Paragraph 18.3, a significant impact would occur when the proposed action causes any of the following:

a. 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.
b. 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.
c. The action would substantially reduce the affected wetland's ability to retain flood waters or storm-associated runoff, thereby threatening public health, safety or welfare (this includes cultural, recreational, and scientific resources important to the public, or property).
d. 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 affected or surrounding wetlands.

e. The action would promote development of secondary activities or services that would affect the resources mentioned in items a) through d) in this section.
f. The action would be inconsistent with applicable State wetland strategies.

4.3.6.1 Proposed Action Alternative

The proposed apron project would place fill in approximately 0.31 acres of the unnamed wash identified as Wash A. The impacts are consistent with activities authorized in Nationwide Permit (NWP) 39 for Commercial and Institutional Developments and the appropriate correspondence with USACE is included in Appendix D of the Final EA. The USACE agreed to an in-lieu fee payment to mitigate the impact. Appendix D of the Final EA also includes the CWA Section 401 certification provided by the Arizona Department of Environmental Quality.

The Proposed Action alternative would not place any additional fill within waters of the U.S. The proposed haul route would follow an existing dirt road where it crosses one unnamed wash (known as Wash A-1) just east of the proposed apron (see Exhibit 3C). Under the CWA, a Section 404 permit would not be required for trucks driving through this ephemeral drainage since no fill would be required. In addition, there are no known wetlands within any of the project areas of disturbance (refer to **Appendix A**).

4.3.6.2 No Action Alternative

The No Action alternative would not result in any ground disturbance or construction activity and, thus, would not result in any potential impact to waters of the U.S. and/or wetlands.

4.4 CUMULATIVE IMPACTS

As discussed previously in Section 3.4, actions used to assess potential cumulative impacts are projects within one mile of the airport. Thus, past, present, and reasonably foreseeable future actions which have been evaluated in this Supplement are those within a one-mile radius of the airport that have occurred or would occur from five years prior to the Proposed Action to five years after the Proposed Action.

There has been no development at the airport in the past five years (other than pavement maintenance of the runway and taxiway system), and there are no projects besides the proposed apron project planned for the year 2014. According to the Town of Wickenburg, there are also no past, present, or reasonably foreseeable future actions within one mile of the airport that would need to be evaluated as part of the cumulative analysis for this Supplement (Boyle, 2014).

The following airport development projects are anticipated to occur during the years from 2015 through 2019:

- Construct an expanded T-Hangar development area; programmed for 2016.
- Construct a wash rack; programmed for 2016.
- Install omni-directional approach lights (ODALs) to Runway 23 end; programmed for 2017.
- Upgrade the medium intensity runway and taxiway lighting with light-emitting diode (LED) lights; programmed for 2018.
- Remove three hangars located within the runway's Object Free Area (OFA); programmed for 2019.

The Final EA found that there would be no additional impacts associated with the apron project that would incrementally contribute to a significant cumulative impact, providing that proper documentation and planning procedures are followed for nearby projects. The Final EA specifically addressed air quality, water quality, and wetlands and waters of the U.S.

The Proposed Action alternative would not change the above conclusions of the Final EA. There are no additional cumulative projects that are scheduled to occur during the three-month period in which the proposed borrow area and haul route would be in use.

No cumulative impacts would occur as a result of the No Action alternative since the No Action alternative would not result in any ground disturbance or construction activity.

5.1 DRAFT SUPPLEMENT'S AVAILABILITY FOR AGENCY REVIEW

The following agencies were sent a letter notifying them of the proposed apron project changes and the availability of the Draft Supplement to the Final Environmental Assessment (Final EA) for Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport for review. A copy of the letter sent is included in **Appendix D**. A link to download the Supplement was also given. Any agencies requesting a hard copy or the report on compact disc (CD) were provided these items as well. The agency list below includes all agencies that were contacted during the preparation of the Final EA with updated addresses and/or contacts, as necessary:

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

Mr. Dave Hurd
U.S. Department of the Interior
National Park Service-Intermountain Region
External Review Team
IMRextrev@nps.gov

Ms. Mary D'Aversa, District Manager
U.S. Department of the Interior
Bureau of Land Management
Hassayampa Field Office
21605 North 7th Avenue
Phoenix, AZ 85027-2929

Mr. Randy Chandler, Area Manager
U.S. Department of the Interior
Bureau of Reclamation, Phoenix Office
6150 W. Thunderbird Road
Glendale, AZ 85306-4001

Mr. Jared Blumenfeld, Regional Administrator
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

Mr. Stephen G. Smarik, State Resource Conservationist
U.S. Department of Agriculture
Natural Resources Conservation Service
230 N. First Avenue, Suite 509
Phoenix, AZ 85003-1733

STATE - ARIZONA

Mr. Michael Fulton, Director
Arizona Department of Environmental Quality
Water Quality Division
1110 W. Washington Street
Phoenix, AZ 85007

Ms. Laura Malone, Director
Arizona Department of Environmental Quality
Waste Programs Division
1110 W. Washington Street
Phoenix, AZ 85007

Mr. Eric Massey, 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. Tonn, Coordinator
Heritage Data Management System
Arizona Game and Fish Department
5000 Carefree Highway
Phoenix, AZ 85086-5000

Mr. Stephen Williams, Natural Resources Director
Arizona State Land Department
1616 W. Adams Street
Phoenix, AZ 85007

Mr. Michael Klein, Aeronautics Group Manager
Arizona Department of Transportation
Multimodal Planning Division
Aeronautics Group
1801 W. Jefferson, MD 426M
Phoenix, AZ 85007

REGIONAL/LOCAL

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

Ms. Julie Hoffman, Environmental Planning Program Manager
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003

Mr. William Wiley, Director
Maricopa County Air Quality Department
1001 N. Central Avenue, Suite 900
Phoenix, AZ 85004

5.2 DRAFT SUPPLEMENT'S AVAILABILITY FOR PUBLIC REVIEW

This Draft Supplement, as well as the Final EA on the proposed mid-field aircraft parking apron (proposed apron), is available for public review by the general public, government agencies, and interested parties for a period of 30 days. A Notice of Availability (NOA) was published in *The Wickenburg Sun* on December 3, 2014. A copy of the NOA is included in **Appendix D**.

Copies of the Draft Supplement and Final EA are available for review at the following locations:

FAA Western-Pacific Region, Airports Division	15000 Aviation Boulevard	Lawndale, CA 90261
FAA Phoenix Airports Office	3800 N. Central Avenue, Suite. 1025 (10th Floor)	Phoenix, AZ 85012
Wickenburg Town Hall	155 N. Tegner Street, Suite A	Wickenburg, AZ 85390
Wickenburg Public Library	164 E. Apache Street	Wickenburg, AZ 85390
Wickenburg Airport website	http://www.ci.wickenburg.az.us	

Anyone wishing to comment on the Draft Supplement or proposed project changes (i.e., the use of an on-airport borrow area and haul route), may submit written comments by letter to the following address:

Town of Wickenburg
155 N. Tegner, Suite A
Wickenburg, Arizona 85390
Attention: Mr. Steve Boyle, Airport Director

The cutoff date for comment submission is not later than **5:00 PM – Mountain Standard time, January 5, 2015.** Please allow enough time for mailing. The Town of Wickenburg must **receive** the comments by the deadline, not simply be postmarked by that date.

All comments received on the Draft Supplement will be considered by the Town of Wickenburg and FAA in preparing the Final Supplement. The Final Supplement will be revised, as necessary, to summarize and incorporate comments received during the public and agency review period. The Final Supplement will be submitted by the airport to FAA for their review. Following review of the Final Supplement to the Final EA, the FAA will either issue a new Finding of No Significant Impact or decide to prepare a Federal Environmental Impact Statement.

Before including a name, address and telephone number, email or other personal identifying information in a comment, the public should be advised that its entire comment – including personal identifying information -- may be made publicly available at any time. While the public can ask FAA in its comment to withhold from public review personal identifying information, FAA cannot guarantee that they will be able to do so.

5.3 SUMMARY OF AGENCY AND PUBLIC REVIEW OF DRAFT SUPPLEMENT

Four comment letters were received during the official agency and public review period of the Draft Supplement and are contained in **Appendix D**:

- Letter from Arizona Department of Environmental Quality (ADEQ), Air Quality Division, dated Dec. 5, 2014;
- Letter from United States Department of the Interior, Bureau of Land Management (BLM), received Dec. 12, 2014;
- Email from National Park Service (NPS), Intermountain Regional External Review Team, received Dec. 19, 2014; and
- Letter from United States Department of Agriculture (USDA), dated Dec. 23, 2014.

No comments were received on the project by members of the general public.

Summary of Agency Comments

The letter from ADEQ, Air Quality Division contained recommended measures to reduce disturbance of particulate matter during construction of the project and included a copy of applicable sections of the *Arizona Administrative Code*, Title 18, Chapter 2, relative to air pollution control.

The letters from BLM and NPS state that they have no questions, concerns or comments relative to the proposed project.

The letter from USDA confirmed that the proposed project does not include prime or unique farmland and is, thus, exempt from the *Farmland Protection Policy Act*.

Persons responsible for preparation of this Supplement to the Final Environmental Assessment (Final EA) for Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport are listed below:

NAME	EXPERTISE	PROFESSIONAL EXPERIENCE
FAA REVIEWER		
David B. Kessler, AICP	Regional Environmental Protection Specialist, Airports Division, Western Pacific Region	M.A., Physical Geography; B.A., Physical Geography (Geology Minor). Principal FAA Planner/Environmental Protection Specialist responsible for detailed FAA evaluation of Environmental Assessments and Environmental Impact Statements, as well as coordination of comments from various federal and state agencies in the FAA's Western Pacific Region.
EA PREPARERS		
Coffman Associates		
Jim Harris, P.E.	Airport Master Planning, Environmental Analysis and Airport Management	B.S., Civil Engineering. Responsible for master planning, noise and land use compatibility planning and environmental documentation for airports.
Judi Krauss	Land Use Planning; Environmental Analysis and Documentation; Socioeconomics	M.A., Economics; B.A., Environmental Studies. Transportation and land use planning, socioeconomic studies, and NEPA analysis/documentation.

Kory Lewis	Land Use Planning, Environmental Analysis and Documentation, Noise Monitoring and Assessment, Air Quality Analysis	Masters, Urban Planning; B.A., Geography. Experience in land use management and noise assessment, and preparation of environmental documentation for airport development projects.
SWCA Environmental Consultants		
David Barr, RPA	Archaeology, Field Historic Resources	M.A., Anthropology; B.S., Anthropology. Experience in archaeological site surveys and excavations, evaluations of resource condition and eligibility for the NRHP. Permitted as Field Director, USFS, Coronado National Forest; permitted as Principal Investigator by US Department of Interior, Bureau of Land Management.
Nichole Cervin	Biologist	M.S. Biology; B.S. Biology. 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 *Clean Water Act*.
Eric Peterson	Archaeologist/Field Supervisor	B.A., Anthropology (Geographic Information Systems, GIS, Minor). Experience throughout Arizona in survey, testing, monitoring, excavation, mapping, artifact processing, curation, report generation, and GIS analysis.
Russell Waldron	Biologist, Senior Project Manager	B.S., School of Natural Resources. Experience in conducting and directing personnel performing biological assessments, jurisdictional water delineations, and native plant survey and identification in Arizona. This includes conducting fieldwork and preparing reports for compliance with the *Endangered Species Act* and Section 404 of the *Clean Water Act*.

The following documents and websites were utilized during the preparation of this Supplement to the Final Environmental Assessment (Final EA) for Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport:

Arizona Department of Environmental Quality (ADEQ), Water Quality Division. Arizona's 2010 Impaired Waters. Available at: http://www.azdeq.gov/environ/water/assessment/download/303d_list.pdf, accessed May 2014.

Arizona Department of Real Estate website, Airport Boundary Maps, Wickenburg Municipal Airport Disclosure Map. Available at: http://www.re.state.az.us/airportmaps/PublicAirports.aspx, accessed May 2014.

Arizona Game and Fish Department (AGFD) website, Environmental Review On-line Tool. Available at: http://www.azgfd.gov/hgis/, accessed May 2014.

Boyle, Steve. Community Development and Neighborhood Services Director, Town of Wickenburg. Email communication with J. Krauss, Coffman Associates on May 15, 2014.

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

Council of Environmental Quality (CEQ). *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions,* February 18, 2010. Available at: http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

Federal Aviation Administration (FAA). Advisory Circular (AC) 150/5370-10F, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control*, September 30, 2011.

FAA. *Final Environmental Assessment for Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport*, and Finding of No Significant Impact (FONSI). April 12, 2011.

FAA. Order 1050.1E, *Environmental Impacts: Policies and Procedures*, March 20, 2006, as amended.

FAA. Order 5050.4B, *National Environmental Policy Act* (NEPA) *Implementing Instructions for Airport Actions,* April 28, 2006.

Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (FIRM) Number 04013C0310L, effective date October 16, 2013.

Federal Highway Administration (FHWA). *Construction Noise Handbook*, August 2006.

General Accounting Office (GAO). *Aviation and Climate Change,* GAO Report to Congressional Committees, GAO-09-554, June 8, 2009. Available at: http://gao.gov/products/GAO-09-554.

Maricopa Association of Governments (MAG). PM-10 Nonattainment Boundary Area Map with Monitor Locations for Maricopa and Pinal Counties, Arizona (U.S. Environmental Protection Agency, October 2013).

Maurice, Lourdes and Lee, David. *Assessing Current Scientific Knowledge, Uncertainties and Gaps in Quantifying Climate Change, Noise and Air Quality Aviation Impacts*, Chapter 5: Aviation Impacts on Climate. Final Report of the ICAO Committee on Aviation and Environmental Protection (CAEP) Workshop, Montreal, Oct. 29 – Nov. 2, 2007. Available at: http://web.mit.edu/aeroastro/partner/reports/caepimpactreport.pdf.

Melrose, Alan. "European ATM and Climate Adaptation: A Scoping Study," International Civil Aviation Organization (ICAO) Environmental Report, 2010.

Supreme Court of the United States (U.S.). *Massachusetts v. E.P.A.*, 549 U.S. 407, 508-10, 521-23, decided April 2, 2007.

SWCA Environmental Consultants (SWCA). *Archaeological Survey of 8.1 Acres for a Proposed Haul Road and Borrow Area at the Wickenburg Municipal Airport, Maricopa County, Arizona*, May 2014.

SWCA. *Biological Assessment of the Wickenburg Municipal Airport Borrow Site and Haul Road Project in Maricopa County, Arizona*, May 2014.

Town of Wickenburg. *Airport Master Plan Update for Wickenburg Municipal Airport, Wickenburg, Arizona, Final Report.* Accepted by Town Council on April 1, 2013; final printing February 2014.

Town of Wickenburg. *General Plan 2025.* Adopted by Town Council on April 1, 2013 and approved by the voters on August 27, 2013. Available at: http://www.ci.wickenburg.az.us/index.aspx?NID=41, accessed May 2014.

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Appendix A

Biological Assessment/Biological Regulations Memorandum

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BIOLOGICAL ASSESSMENT OF THE WICKENBURG MUNICIPAL AIRPORT BORROW SITE AND HAUL ROAD PROJECT IN MARICOPA COUNTY, ARIZONA

Prepared for

Coffman Associates

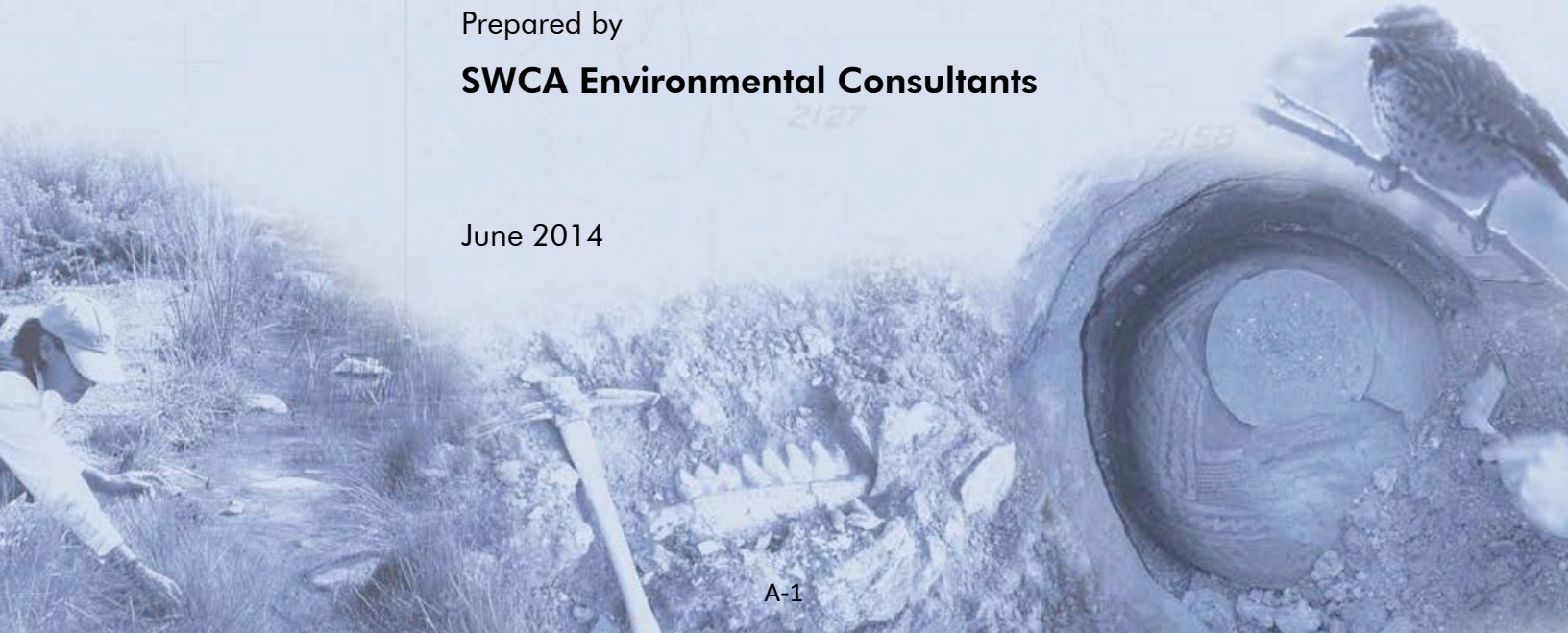
For submittal to

Federal Aviation Administration

Prepared by

SWCA Environmental Consultants

June 2014



BIOLOGICAL ASSESSMENT OF THE WICKENBURG MUNICIPAL AIRPORT BORROW SITE AND HAUL ROAD PROJECT IN MARICOPA COUNTY, ARIZONA

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SWCA Project No. 28284

June 2014

EXECUTIVE SUMMARY

This biological assessment (BA) has been prepared as part of an effort to identify habitat for species listed under the federal Endangered Species Act of 1973 (ESA) for the Wickenburg Municipal Airport Borrow Site and Haul Road Project (the project), located in Sections 4, 5, and 8, Township 7 North, Range 5 West, Gila and Salt River Baseline and Meridian, Maricopa County, Arizona. This BA covers approximately 8.1 acres for the project.

The objectives of this BA are to 1) describe vegetation communities in the project area; and 2) evaluate habitat suitability for both federally listed and special-status species. This BA is intended to identify and document special-status species and habitat that may be present within the project area.

Twenty two federally listed species are addressed in this BA, 18 of which are listed by the U.S. Fish and Wildlife Service (USFWS) as threatened or endangered (including two species listed as non-essential experimental populations in Maricopa County), and one species proposed as threatened, and are therefore protected under the authority of the ESA. The remaining four species are listed by the USFWS as candidate species and currently receive no statutory protection under the ESA.

None of the 22 species on the USFWS Maricopa County list are likely to occur within the project area. The project area is clearly beyond the known geographic or elevational range of these 22 species, or does not contain vegetation or landscape features known to support these species, or both. Therefore, it is unlikely that the proposed project would have an effect on the 22 federally listed species or their habitat. Note that the findings in this document are a professional opinion only. The lead permitting agency, the Federal Aviation Administration has the authority and final decision regarding what effect this project would have on any species listed as endangered or threatened under the ESA.

1.0 INTRODUCTION

SWCA Environmental Consultants (SWCA) was contracted by Coffman Associates to complete a biological assessment (BA) for the proposed Wickenburg Municipal Airport Borrow Site and Haul Road Project, located north of U.S. Highway 60 and west of the town of Wickenburg, Maricopa County, Arizona (Figure 1). Wickenburg Municipal Airport is proposing to construct a midfield aircraft parking apron on the south side of Runway 5-23 and an associated access road in Maricopa County, Arizona.
To facilitate this construction, additional fill must be acquired for grading and compaction needs. Wickenburg Municipal Airport is proposing the construction of a haul road and a borrow area south of Taxiway A on Airport-administered lands. The project area is approximately 8.1 acres within Sections 4, 5, and 8, Township 7 North, Range 5 West, Gila and Salt River Baseline and Meridian, Maricopa County, Arizona (Figure 2). This BA was prepared per Federal Aviation Administration requirements and to address the Endangered Species Act of 1973, as amended (ESA), and possibly in support of a Clean Water Act permit, if deemed necessary.

The scope of work for this BA included

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

An SWCA biologist conducted a field reconnaissance of the project area on May 9, 2014. 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 ESA. The list also includes candidate species, species proposed as threatened or endangered, and species delisted from protection under the ESA but currently proposed for relisting. 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 United States Code 703–712).

Only species listed by the USFWS are afforded protection under the ESA. The special-status species evaluated in this BA were based on the list of endangered, threatened, proposed, and candidate species for Maricopa County, Arizona, available at the USFWS IPaC website (USFWS 2014a). In addition, the USFWS IPaC database was used to further assess the potential for species listed under the ESA to occur within the project area (USFWS 2014b). The American peregrine falcon (*Falco peregrinus anatum*), Arizona agave (*Agave arizonica*), bald eagle (*Haliaeetus leucocephalus*), and California brown pelican (*Pelecanus occidentalis californicus*) have been delisted and no longer receive protection under the ESA; thus, these

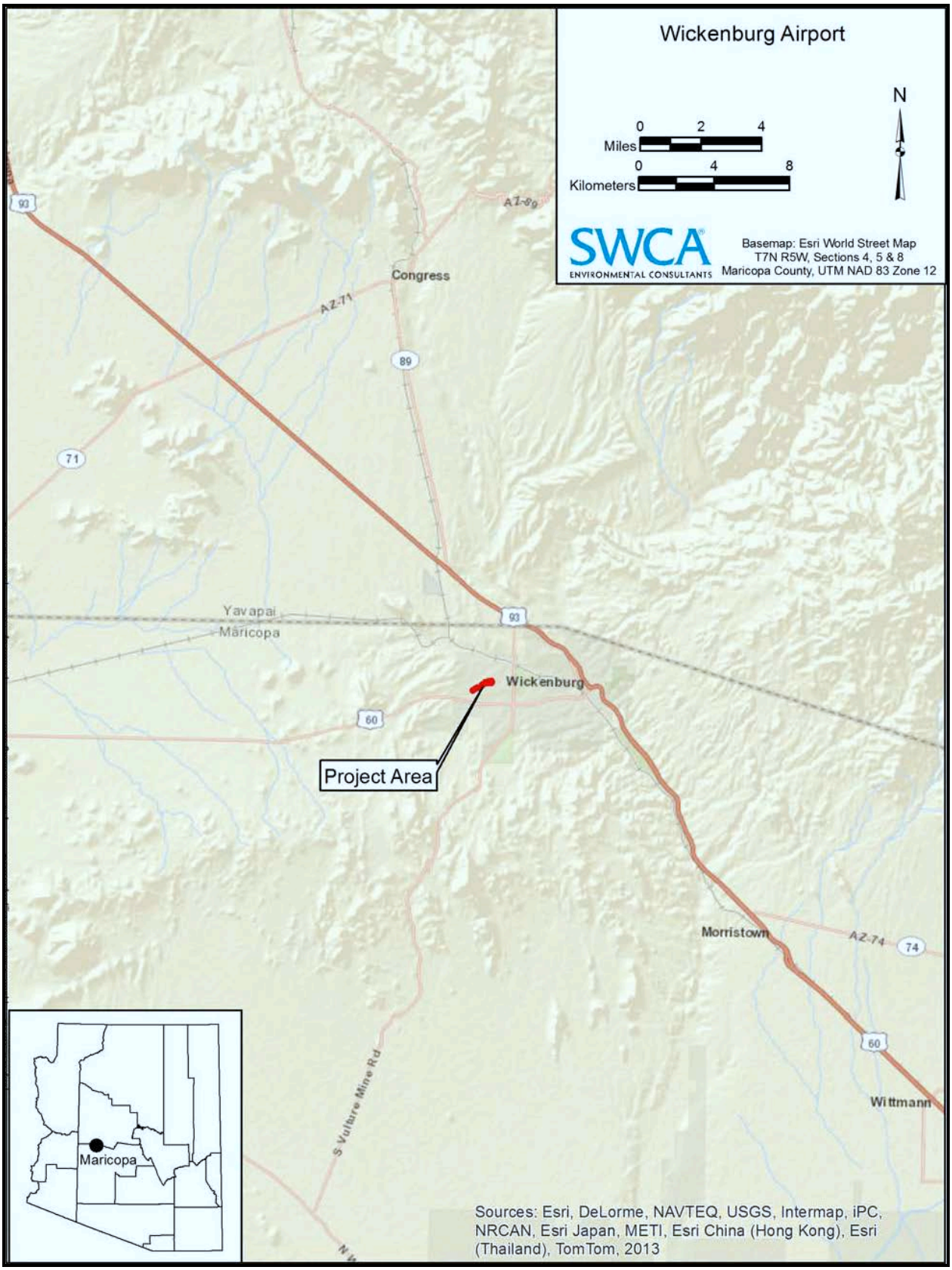

Figure 1. Project location.

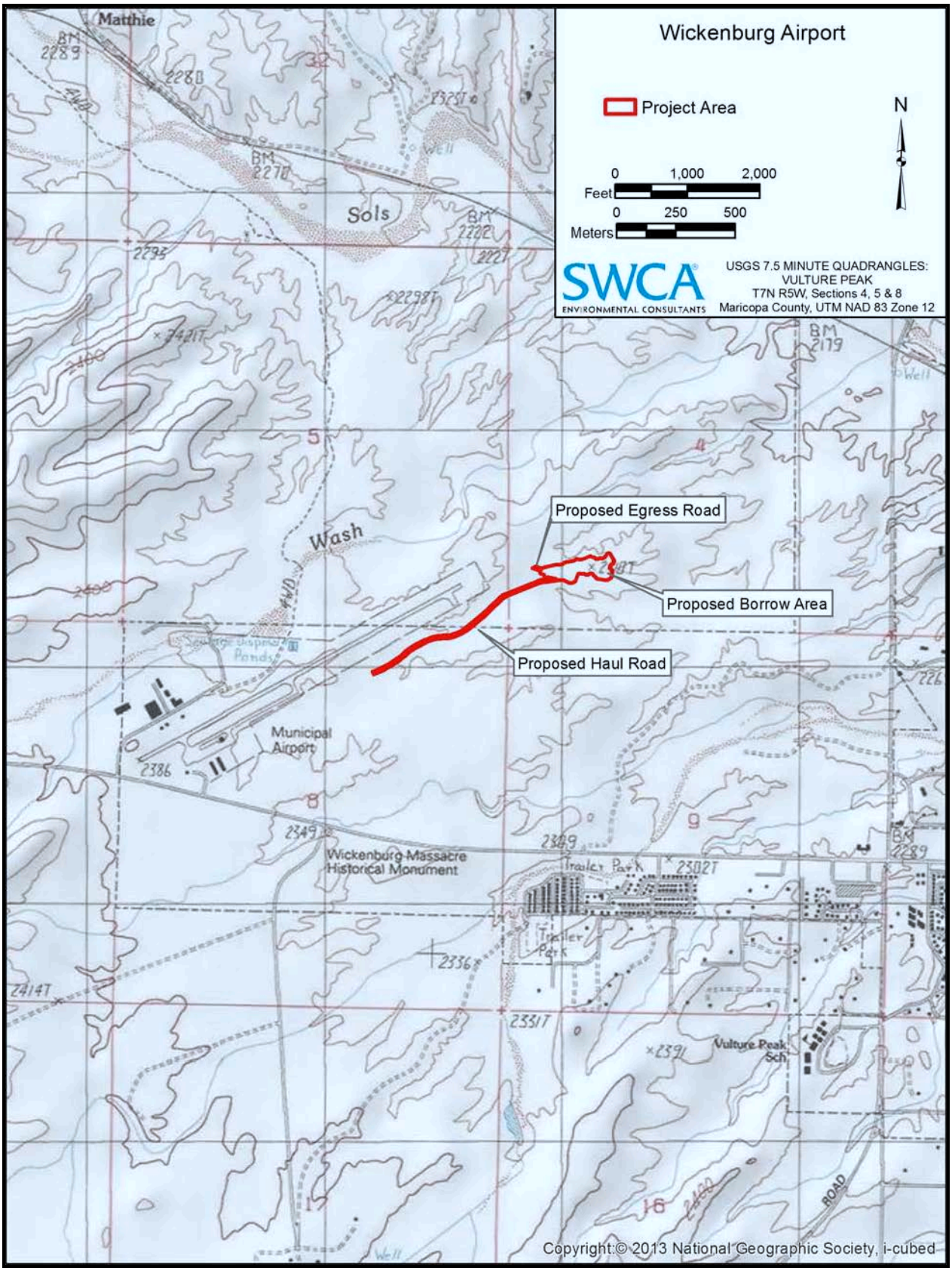

Figure 2. Project area.

four species are not addressed in this BA. The USFWS Maricopa County species list is provided in Appendix A. The results of the project area specific USFWS IPaC database searches are provided in Appendix B.

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 2014). The search results receipt is included in Appendix C.

The potential for the species addressed in this BA to occur in the project area 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 are as follows:

- *May affect, is likely to adversely affect*—the proposed project is likely to adversely affect a species if 1) the species occurs or may occur in the project site; and 2) any adverse effect on listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. In the event that the overall effect of the proposed action is beneficial to the listed species but also is likely to cause some adverse effects, then the proposed action "is likely to adversely affect" the listed species.

- *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/or surveys following approved

[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.

protocol have been conducted with negative results; and/or 2) project activity effects on a listed species are expected to be discountable, insignificant, or completely beneficial.

Beneficial effects are contemporaneous positive effects without any adverse effects on the species. **Insignificant effects** relate to the size of the impact and should never reach the scale where take occurs. **Discountable effects** are those extremely unlikely to occur. Based on best judgment, a person would not 1) be able to meaningfully measure, detect, or evaluate insignificant effects; or 2) expect discountable effects to occur.

- *No effect*—the project will have no effect on a species if 1) it has no likelihood of effect on a listed species or its designated critical habitat (including effects that may be beneficial, insignificant, or discountable); or 2) the species' habitat does not occur in the project site.

Because species not listed as threatened or endangered are not protected under the authority of the ESA, impact determinations for these species do not follow the above USFWS recommendations. Instead, the impact determinations for any species listed as candidate or proposed endangered and not protected under the ESA are as follows:

- *No impact*—the project would have no impact 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.
- *Beneficial impact*—the project is likely to benefit the species, whether it is currently present or not, by creating or enhancing habitat elements known to be used by the species.
- *May impact individuals but is not likely to result in a trend toward federal listing or loss of viability*—the project is not likely to adversely impact 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.
- *May impact individuals and is likely to result in a trend toward federal listing or loss of viability*—the project is likely to adversely impact 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.

3.0 RESULTS

3.1 Ecological Overview

The project area is located in the northernmost 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 one unnamed ephemeral wash flows across the western end of the haul road; this ephemeral wash has been previously identified as Wash A1. Under the Clean Water Act, a Section 404 permit would not be required for trucks driving through this ephemeral drainage. The project area primarily consists of undisturbed native vegetation.

No agaves (*Agave* spp.), saguaro (*Carnegiea gigantea*), aquatic habitats (including wetlands and stock ponds), broadleaf deciduous riparian vegetation communities (i.e., communities containing willow [*Salix* sp.], cottonwood [*Populus* sp.], or ash [*Fraxinus* sp.)], etc.), or potential bat roost sites (e.g., natural caves or mine features) occur 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 upland portions of project area includes creosote bush (*Larrea tridentata* var. *tridentata*) and velvet mesquite (*Prosopis velutina*). Less common species include canotia (*Canotia holacantha*), triangle-leaf bursage (*Ambrosia deltoidea*), ratany (*Krameria* sp.), barrel cactus (*Ferocactus wislizeni*), and fluffgrass (*Dasyochloa pulchella*), desert broom (*Baccharis sarothroides*), flatcrown buckwheat (*Eriogonum deflexum* var. *deflexum*), and globemallow (*Sphaeralcea* sp.). Xeroriparian vegetation along the ephemeral wash contains many of the same upland species but also includes catclaw acacia (*Acacia greggii* var. *greggii*), blue paloverde (*Parkinsonia florida*), and yellow paloverde (*P. microphylla*). Nonnative species observed within the project area include Mediterranean grass (*Schismus* sp.) and red brome (*Bromus rubens*).

3.3 Special-Status Species Evaluation

None of the 22 species listed for Maricopa County by USFWS are likely to occur in the project area. The project area is 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 of the project on these 22 species are summarized in Table 1.

According to AZHGIS, there are no records of special-status species occurring within 3 miles of the project area. There is 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 2014); USFWS Arizona Ecological Services Field Office (USFWS 2014a); *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
Acuna cactus (Echinomastus erectocentrus var. acunensis)	USFWS E	This cactus occurs in disjunct populations across southern Arizona on well-drained gravel ridges and knolls on granite-derived soils. It grows in the Arizona Upland subdivision of the Sonoran desertscrub plant association at elevations between 1,198 and 2,789 feet amsl. This species occurs in Maricopa, Pima, and Pinal Counties.	Unlikely to occur. There are no gravel ridges or knolls with granite-derived soils in the project area.	No effect.
Arizona cliffrose (Purshia subintegra)	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, and the site is highly disturbed. The project area is also below the known elevational range of this species.	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 2014); USFWS Arizona Ecological Services Field Office (USFWS 2014a); 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 hedgehog cactus *(Echinocereus triglochidiatus* var. *arizonicus*)	USFWS E	Found on open slopes of rugged, steep-walled canyons with granite or dacite bedrock among boulder piles in desert grassland and in the understory of shrubs in the ecotone between the Madrean Evergreen Woodland and Interior Chaparral biomes at elevations between 3,400 and 5,300 feet amsl. Its range is restricted to the Superstition Mountains on the Tonto National Forest.	Unlikely to occur. The project area is below the known elevation range of the species, does not contain the vegetation association in which this species is known to occur, and is distant from known populations on the Tonto National Forest.	No effect.
California least tern (*Sterna antillarum browni*)	USFWS E	Forms nesting colonies on barren to sparsely vegetated areas. Nests in shallow depressions on open sandy beaches, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, and drainage systems. Found in Maricopa, Mohave, and Pima Counties.	Unlikely to occur. There are no aquatic areas with suitable nesting sites in the project area. This species is only an occasional migrant to Maricopa County.	No effect.
Colorado pikeminnow (*Ptychocheilus Lucius*)	USFWS E Non-essential experimental population	Found at elevations below 4,000 feet amsl in rivers with high silt content, warm water, turbulence, and variable flow by season. Extirpated from the Gila and Colorado Rivers south of Lake Powell. The last known naturally occurring specimen from Arizona was collected in 1969. In Arizona, experimental, nonessential populations have been reintroduced into the Verde and Salt Rivers in Yavapai and Gila Counties.	Unlikely to occur. There are no permanent water sources suitable for this species in the project area.	No effect.
Desert pupfish (*Cyprinodon macularius*)	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.	Unlikely to occur. There are no permanent water sources suitable for this species in the project area.	No effect.
Gila topminnow (*Poeciliopsis occidentalis occidentalis*)	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 permanent water sources suitable for this species in the project area.	No effect.
Lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*)	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 (*Stenocereus thurberi*) are present. Forages at night on nectar, pollen, and fruit of paniculate agaves and columnar cacti. The foraging radius may be 30 to 60 miles per night or more.	Unlikely to occur. There are no suitable roost sites for this species in the project area and the project area is outside the known range of the species.	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 2014); USFWS Arizona Ecological Services Field Office (USFWS 2014a); 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
Mexican spotted owl (*Strix occidentalis lucida*)	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 (*Pinus ponderosa*)–Gambel oak (*Quercus gambelii*). Nests in live trees on natural platforms (e.g., dwarf mistletoe [*Arceuthobium* spp.] brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet amsl.	Unlikely to occur. There are no montane forests or shady, wooded canyons in the project area. The project area is also well below the known elevational range of this species.	No effect.
Nichol's Turk's head cactus (*Echinocactus horizonthalonius* var. *nicholii*)	USFWS E	Found in Sonoran desertscrub with limestone-derived alluvium at elevations between 2,000 and 3,600 feet amsl. In Arizona, its known range is limited to the Waterman and Vekol Mountains.	Unlikely to occur. There are no limestone-derived alluvium soils in the project area and the nearest populations in the Waterman Mountains are more than 80 miles south of the project area.	No effect.
Ocelot (*Leopardus pardalis*)	USFWS E	In Arizona, this species has typically been observed in subtropical thorn forest, thornscrub, and dense, brushy thickets at elevations below 8,000 feet amsl and is often found in riparian bottomlands. The critical habitat component is probably dense cover near the ground and complete avoidance of open country. In Arizona, there are two recent confirmed sightings of ocelot in the Huachuca Mountains (2011), one near Globe (2010), and unconfirmed sightings in the Huachuca, Chiricahua and Peloncillo Mountains.	Unlikely to occur. This species is extremely rare and the project area lacks the subtropical thorn forest, thornscrub and dense brushy thicket preferred by this species.	No effect.
Razorback sucker (*Xyrauchen texanus*)	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 permanent water sources suitable for this species in the project area.	No effect.
Roundtail chub[†] (*Gila robusta*)	USFWS C	Found in cool to warm water, mid-elevation streams and rivers with pools adjacent to swifter riffles and runs. In Arizona, this fish occurs at elevations between 1,210 and 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 permanent water sources suitable for this species in the project area.	No impact.
Sonoran desert tortoise[†] (*Gopherus morafkai*)	USFWS C	Occurs on primarily rocky, and often steep, hillsides and bajadas of Mohave and Sonoran desertscrub, typically at elevations below 7,800 feet amsl. May occur, but is less likely to occur, in desert grassland, juniper woodland, and interior chaparral habitats and even pine communities.	Unlikely to occur. There is no suitable habitat for this species within the project area and there are no records of this species occurring within 3 miles of the project area. In addition, the project area is fenced on all sides.	No impact.

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

Range or habitat information is from Heritage Data Management System (HDMS 2014); USFWS Arizona Ecological Services Field Office (USFWS 2014a); 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 (*Antilocapra americana sonoriensis*)	USFWS E	Found in Sonoran desertscrub within broad, intermountain alluvial valleys with creosote (*Larrea tridentata*)–bursage (*Ambrosia* spp.) and palo verde (*Parkinsonia* spp.)–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. The project area is over 80 miles northwest of the known range of this species. In addition, the project area is below the known elevational range of this species.	No effect.
Southwestern willow flycatcher† (*Empidonax traillii extimus*)	USFWS E	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder (*Acer negundo*), saltcedar (*Tamarix* spp.), Russian olive (*Elaeagnus angustifolia*), buttonbush (*Cephalanthus* spp.), and arrowweed (*Pluchea sericea*) 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 dense riparian vegetation in the project area.	No effect.
Spikedace (*Meda fulgida*)	USFWS E	Found in medium-sized to large perennial streams, where it inhabits moderate-velocity to fast waters over gravel and rubble substrates, typically at elevations below 6,000 feet amsl. In Arizona, populations are found in the middle Gila, lower San Pedro, and Verde Rivers and Aravaipa and Eagle Creeks.	Unlikely to occur. There are no permanent water sources suitable for this species in the project area.	No effect.
Sprague's pipit† (*Anthus spragueii*)	USFWS C	Winters mainly in San Rafael, Sonoita, and Sulphur Springs grasslands in southeastern Arizona. A few individuals have also been found wintering in grassy (sometimes mixed with alfalfa) fields along the lower Colorado River from north of Yuma to Parker and grass and alfalfa fields near Phoenix and Sierra Vista. Arrives on wintering grounds by mid-October and is usually gone by early April.	Unlikely to occur. There are no grasslands or agricultural fields in the project area.	No impact.
Tucson shovel-nosed snake† (*Chionactis occipitalis klauberi*)	USFWS C	This snake is typically observed in creosote-mesquite (*Prosopis* spp.) floodplain habitats in soft, sandy loam soils at elevations between 785 and 1,662 feet amsl in Pima, western Pinal, and eastern Maricopa Counties.	Unlikely to occur. The project area is outside the known range for this species.	No impact.
Woundfin (*Plagopterus argentissimus*)	USFWS E Non-essential experimental population	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. Experimental, nonessential designation in portions of the Verde, Gila, San Francisco, and Hassayampa Rivers and Tonto Creek.	Unlikely to occur. There are no permanent water sources suitable for this species in 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 2014); USFWS Arizona Ecological Services Field Office (USFWS 2014a); 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
Yellow-billed cuckoo† (*Coccyzus americanus*)	USFWS PT	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 the project area.	No impact.
Yuma clapper rail (*Rallus longirostris yumanensis*)	USFWS E	In Arizona, found at elevations below 4,500 feet amsl in freshwater marshes, which are often dominated by cattails (*Typha* spp.), bulrushes (*Isolepis* spp.), and sedges (*Carex* spp.). 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 freshwater marshes in the project area.	No impact.

* 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 such actions are precluded at present by other listing activity.

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.

PT = Proposed Threatened. Proposed threatened species are those that are not currently federally protected under the ESA but are eligible to be listed as threatened under the ESA.

T = Threatened. Threatened species are those in imminent jeopardy of becoming endangered. The ESA prohibits the take of a species listed as threatened under Section 4d of the ESA. 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.

† Species was listed on the USFWS IPAC database search results.

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). 2014. Arizona Game and Fish Department online environmental review tool. Available at: http://www.azgfd.gov/hgis. Accessed May 6, 2014.

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Corman, T.E., and C. Wise-Gervais. 2005. *Arizona Breeding Bird Atlas*. Albuquerque: University of New Mexico Press.

Hall, L.S., P.R. Krausman, and M.L. Morrison. 1997. The habitat concept and a plea for standard terminology. *Wilson Society Bulletin* 25:173–182.

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U.S. Fish and Wildlife Service (USFWS). 2014a. Listed species in Maricopa County. Available at: http://www.fws.gov/southwest/es/arizona/Documents/CountyLists/Maricopa.pdf. Accessed May 6, 2014.

———. 2014b. Information, Planning, and Conservation System (IPAC). Available at: http://ecos.fws.gov/ipac/. Accessed May 6, 2014.

APPENDIX A

USFWS Maricopa County Species List

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

Arizona Ecological Services Field Office
2321 WEST ROYAL PALM ROAD, SUITE 103
PHOENIX, AZ 85021
(602) 242-0210
http://www.fws.gov/southwest/es/arizona/
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

Project Name:

Wickenburg Airport

Project Counties:

Maricopa, AZ

Project Type:

Transportation

Endangered Species Act Species List (USFWS Endangered Species Program).

There are a total of **22** threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Birds	Status		Has Critical Habitat	Contact

Natural Resources of Concern

California Least tern (*Sterna antillarum browni*)	Endangered	species info		Arizona Ecological Services Field Office
Mexican Spotted owl (*Strix occidentalis lucida*) Population: Entire	Threatened	species info	Final designated critical habitat	Arizona Ecological Services Field Office
Southwestern Willow flycatcher (*Empidonax traillii extimus*) Population: Entire	Endangered	species info	Final designated critical habitat	Arizona Ecological Services Field Office
Sprague's Pipit (*Anthus spragueii*)	Candidate	species info		Arizona Ecological Services Field Office
Yellow-Billed Cuckoo (*Coccyzus americanus*) Population: Western U.S. DPS	Proposed Threatened	species info		Arizona Ecological Services Field Office
Yuma Clapper rail (*Rallus longirostris yumanensis*) Population: U.S.A. only	Endangered	species info		Arizona Ecological Services Field Office
Fishes				

Natural Resources of Concern

Colorado pikeminnow (*Ptychocheilus lucius*) Population: Salt and Verde R. drainages, AZ	Experimental Population, Non-Essential	species info		Arizona Ecological Services Field Office
Desert pupfish (*Cyprinodon macularius*) Population: Entire	Endangered	species info	Final designated critical habitat Final designated critical habitat	Arizona Ecological Services Field Office
Gila topminnow (*Poeciliopsis occidentalis*) Population: U.S.A. only	Endangered	species info		Arizona Ecological Services Field Office
Razorback sucker (*Xyrauchen texanus*) Population: Entire	Endangered	species info	Final designated critical habitat	Arizona Ecological Services Field Office
Roundtail chub (*Gila robusta*) Population: Lower Colorado River Basin DPS	Candidate	species info		Arizona Ecological Services Field Office
spikedace (*Meda fulgida*) Population: Entire	Endangered	species info	Final designated critical habitat	Arizona Ecological Services Field Office
Woundfin (*Plagopterus argentissimus*) Population: Gila R. drainage, AZ, NM	Experimental Population, Non-Essential	species info		Arizona Ecological Services Field Office

U.S. Fish and Wildlife Service

Natural Resources of Concern

Flowering Plants				
Acuna Cactus (*Echinomastus erectocentrus var. acunensis*)	Endangered	species info		Arizona Ecological Services Field Office
Arizona Cliff-rose (*Purshia (=cowania) subintegra*)	Endangered	species info		Arizona Ecological Services Field Office
Arizona Hedgehog cactus (*Echinocereus triglochidiatus var. arizonicus*)	Endangered	species info		Arizona Ecological Services Field Office
Nichol's Turk's Head cactus (*Echinocactus horizonthalonius var. nicholii*)	Endangered	species info		Arizona Ecological Services Field Office
Mammals				
Lesser Long-Nosed bat (*Leptonycteris curasoae yerbabuenae*) Population: Entire	Endangered	species info		Arizona Ecological Services Field Office
ocelot (*Leopardus (=felis) pardalis*) Population: U.S.A.(AZ, TX) to Central and South America	Endangered	species info		Arizona Ecological Services Field Office

Natural Resources of Concern

Sonoran pronghorn (*Antilocapra americana sonoriensis*) Population: Entire	Endangered	species info		Arizona Ecological Services Field Office
Reptiles				
Sonoran desert tortoise (*Gopherus morafkai*) Population:	Candidate	species info		Arizona Ecological Services Field Office
Tucson Shovel-Nosed Snake (*Chionactis occipitalis klauberi*)	Candidate	species info		Arizona Ecological Services Field Office

Critical habitats within your project area: (View all critical habitats within your project area on one map)

The following critical habitats lie fully or partially within your project area.

Birds	Critical Habitat Type
Mexican Spotted owl (*Strix occidentalis lucida*) Population: Entire	Final designated critical habitat
Southwestern Willow flycatcher (*Empidonax traillii extimus*) Population: Entire	Final designated critical habitat
Fishes	
Razorback sucker (*Xyrauchen texanus*) Population: Entire	Final designated critical habitat

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.

U.S. Fish and Wildlife Service

Natural Resources of Concern

FWS Migratory Birds (USFWS Migratory Bird Program).

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668). The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

Migratory bird information is not available for your project location.

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

IPaC is unable to display wetland information at this time.

APPENDIX B

USFWS Information, Planning, and Conservation System Database Results

U.S. Fish and Wildlife Service

Natural Resources of Concern

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

Arizona Ecological Services Field Office
2321 WEST ROYAL PALM ROAD, SUITE 103
PHOENIX, AZ 85021
(602) 242-0210
http://www.fws.gov/southwest/es/arizona/
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

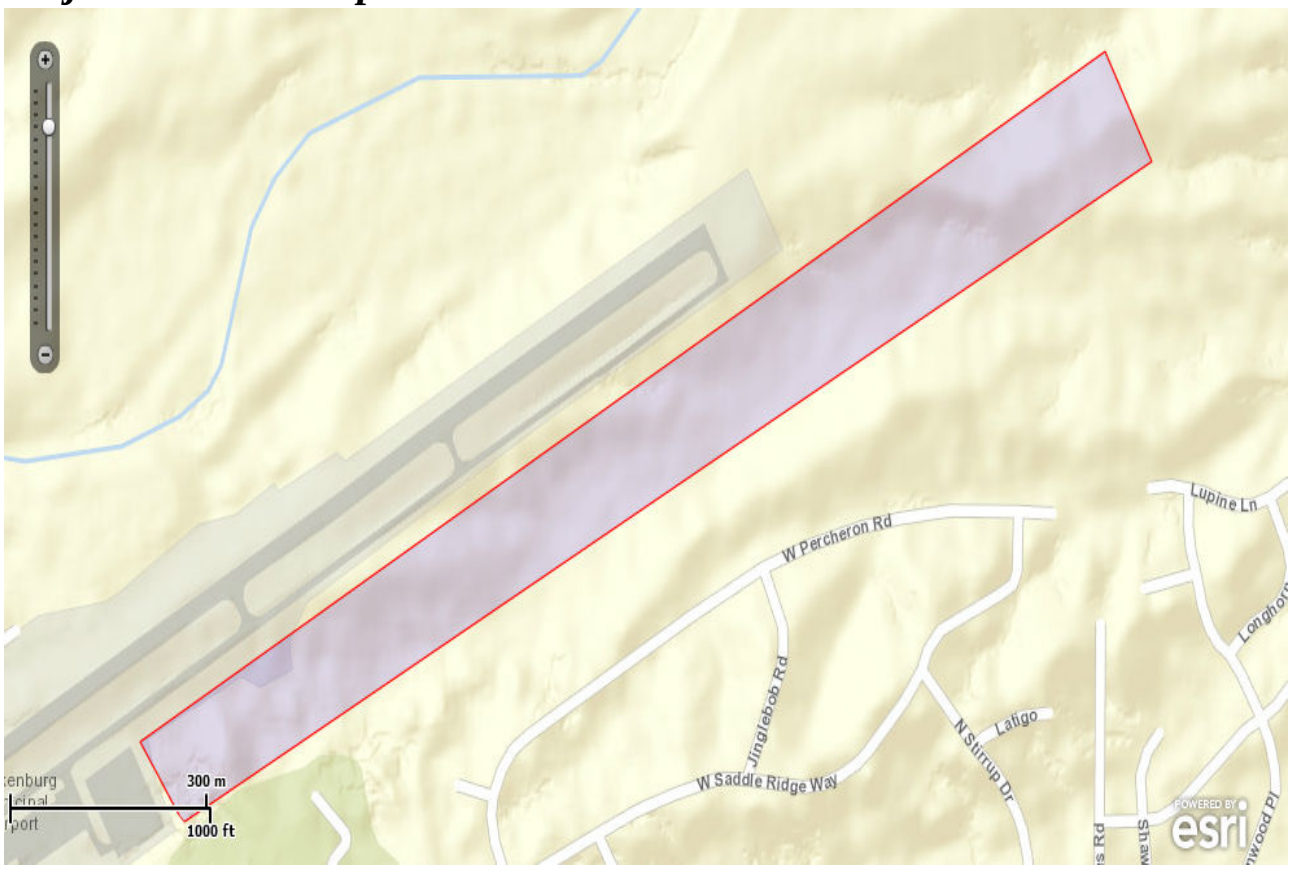
Project Name:

Wickenburg Airport

U.S. Fish and Wildlife Service

Natural Resources of Concern

Project Location Map:



Project Counties:

Maricopa, AZ

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-112.800558 33.967002, -112.7845956 33.9743675, -112.7838232 33.973193, -112.7998306 33.966146, -112.800558 33.967002)))

Project Type:

Transportation

U.S. Fish and Wildlife Service

Natural Resources of Concern

Endangered Species Act Species List (USFWS Endangered Species Program).

There are a total of **7** threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Birds	Status		Has Critical Habitat	Contact
California Least tern (*Sterna antillarum browni*)	Endangered	species info		Arizona Ecological Services Field Office
Southwestern Willow flycatcher (*Empidonax traillii extimus*) Population: Entire	Endangered	species info	Final designated critical habitat	Arizona Ecological Services Field Office
Sprague's Pipit (*Anthus spragueii*)	Candidate	species info		Arizona Ecological Services Field Office
Yellow-Billed Cuckoo (*Coccyzus americanus*) Population: Western U.S. DPS	Proposed Threatened	species info		Arizona Ecological Services Field Office
Fishes				
Roundtail chub (*Gila robusta*) Population: Lower Colorado River Basin DPS	Candidate	species info		Arizona Ecological Services Field Office
Reptiles				
Sonoran desert tortoise (*Gopherus morafkai*) Population:	Candidate	species info		Arizona Ecological Services Field Office

Natural Resources of Concern

Tucson Shovel-Nosed Snake (*Chionactis occipitalis klauberi*)	Candidate	species info		Arizona Ecological Services Field Office

Critical habitats within your project area:

There are no critical habitats within your project area.

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds (USFWS Migratory Bird Program).

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668). The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

Migratory bird information is not available for your project location.

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these

requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

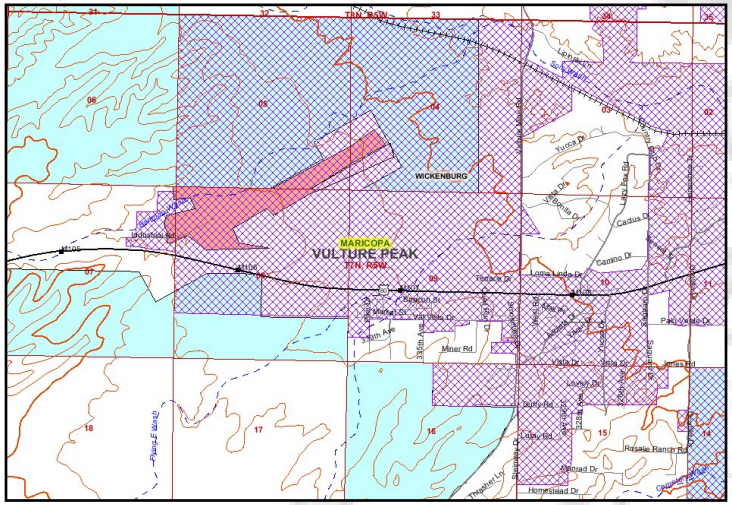
There are no wetlands found within the vicinity of your project.

APPENDIX C

AZHGIS Online Environmental Review Tool

Arizona's On-line Environmental Review Tool
Search ID: 20140506023319
Project Name: Wickenburg airport
Date: 5/6/2014 10:25:59 AM

Project Location



Project Name: Wickenburg airport
Submitted By: Nichole Cervin
On behalf of: OTHER
Project Search ID: 20140506023319
Date: 5/6/2014 10:25:54 AM
Project Category: Transportation & Infrastructure,Airports,Construction of new runways, terminals/concourses, other facilities
Project Coordinates (UTM Zone 12-NAD 83): 334795.123, 3760568.654 meter
Project Area: 18.139 acres
Project Perimeter: 1832.706 meter
County: MARICOPA
USGS 7.5 Minute Quadrangle ID: 1106
Quadrangle Name: VULTURE PEAK
Project locality is currently being scoped

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.

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
Wickenburg - Hassayampa Linkage Design	Wildlife Corridor				

 APPLICATION INITIALS: _____

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 928-226-0614
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

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/arizonaes/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 a 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

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:

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.corridordesign.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 initialed 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
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

 APPLICATION INITIALS: _____

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: _____

Please provide point of contact information regarding this Environmental Review.

Application or organization responsible for project implementation

 APPLICATION INITIALS: _____

Agency/organization:_____

E-mail: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

Person Conducting Search (if not applicant)

Agency/organization:_____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

 APPLICATION INITIALS: _____

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Phoenix Office
3033 North Central Avenue, Suite 145
Phoenix, AZ 85012
Tel 602.274.3831 Fax 602.274.3958
www.swca.com

Biological Regulations Memorandum

To: Judi Krauss
Coffman Associates
4835 East Cactus Road, Suite 235
Scottsdale, Arizona 85254

From: Nichole Cervin, SWCA Environmental Consultants

Date: May 30, 2014

Re: **Wickenburg Municipal Airport Borrow Site and Haul Road / SWCA Project No. 28284**

INTRODUCTION

This biological regulations memorandum (BRM) has been prepared by SWCA Environmental Consultants (SWCA) to document compliance with federal, state, and local biological regulations not addressed in the biological assessment (BA) for the Wickenburg Municipal Airport Borrow Site and Haul Road Project (the project).[1] The BA addresses the Endangered Species Act of 1973 (ESA) exclusively, but other regulations—such as the Migratory Bird Treaty Act of 1918 (MBTA), the Bald and Golden Eagle Protection Act, the Arizona Department of Agriculture (ADA)-administered Native Plant Law (Arizona Revised Statutes [ARS] 3-904), and local biological ordinances—should also be considered.

This evaluation covers approximately 8.1 acres of land for the project, located in Sections 4, 5, and 8, Township 7 North, Range 5 West, Gila and Salt River Baseline and Meridian, Maricopa County, Arizona. SWCA biologist Nichole Cervin visited the project area described above on May 9, 2014. Elevation within the project area is approximately 2,350 feet above mean sea level. Existing vegetation consists mainly of creosote bush (*Larrea tridentata*), velvet mesquite (*Prosopis velutina*), and paloverde (*Parkinsonia* spp.). The topography within the project area and the surrounding area is gently sloping.

The objectives of this BRM are to 1) report the occurrence of species protected by the ADA-administered Native Plant Law; and 2) evaluate habitat suitability for species addressed by regulations other than the ESA. Species of Special Concern and birds protected under the MBTA were evaluated by means of correspondence with the Arizona Game and Fish Department (AGFD). SWCA's background research for this project showed that these are the only biological regulations, in addition to the ESA, that pertain to this project.

[1] SWCA Environmental Consultants (SWCA). 2014. *Biological Assessment of the Wickenburg Municipal Airport Borrow Site and Haul Road Project in Maricopa County, Arizona*. Tucson.

SOILS

SWCA accessed data for surface geology within this project area through the Natural Resources Conservation Service (NRCS) website.[2] Soil in the project area is Eba-Continental-Cave association, which is found on alluvial fans and consists of very gravelly loam, very gravelly clay, and extremely gravelly sandy loam with slopes of 3% to 8%. The NRCS soil data obtained for the project area are included in Appendix A.

Arizona Native Plant Law

Protected native plant species classified under the Arizona Native Plant Law (ARS 3-904) are present in the project area. These species include velvet mesquite (*Prosopis velutina*), barrel cactus (*Ferocactus wislizeni*), blue paloverde (*Parkinsonia florida*), and yellow paloverde (*P. microphylla*). This law states that protected plants cannot be removed from any lands, including private lands, without permission and a permit from the ADA. *Highly Safeguarded* native plants are those species for which removal is not allowed except with an ADA scientific permit; no collection of these plants is allowed. *Salvage Restricted* native plants are those plants for which a salvage permit is required; collection is allowed only with a permit. *Salvage Assessed* native plants are those plants which are recommended to be salvaged. Barrel cactus and velvet mesquite are listed as Salvage Restricted and blue paloverde, yellow paloverde, and velvet mesquite are listed as Salvage Assessed under this law. A list of plant species observed within the project area is provided in the BA prepared for this project.[3]

Noxious Weeds

The ADA has a list of Regulated, Restricted, and Prohibited Noxious Weeds (Arizona Administrative Code R3-4-244 and R3-4-245), which addresses the control and eradication of noxious weeds and identifies specific species that fall under these three noxious weed categories. The Plant Services division of the ADA is responsible for implementing these noxious weed regulations. Definitions of these three weed classes are as follows: 1) regulated noxious weeds are exotic plant species that are well established and generally distributed throughout Arizona; 2) restricted noxious weeds are exotic plant species that occur in Arizona in isolated infestations or very low populations; and 3) prohibited noxious weeds are exotic plant species with known qualities that do not currently exist in Arizona.

The project area was surveyed for invasive plant species. Two nonnative plant species observed within the project area were Mediterranean grass (*Schismus* sp.) and red brome (*Bromus rubens*). No State of Arizona Regulated, Restricted, and Prohibited Noxious Weed species were observed in the project area.

MIGRATORY BIRD TREATY ACT

In total, six avian species were observed within the project area. Bird species observed within the project area during this evaluation were: Abert's towhee (*Pipilo aberti*), great-tailed grackle (*Quiscalus mexicanus*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), curve-billed thrasher (*Toxostoma curvirostre*), and Gambel's quail (*Callipepla gambelii*). The above list includes only those avian species observed during the biological evaluation survey.

All bird species observed in the project area are protected under the MBTA, which provides federal protection to all migratory birds, including nests and eggs. In order to relocate or alter any MBTA-protected nests, it will be necessary to obtain a permit from the U.S. Fish and Wildlife Service (USFWS)

[2] Natural Resources Conservation Service (NRCS). 2014. Web Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed May 6, 2014.

[3] SWCA, *op. cit.*

to maintain compliance with the MBTA. However, Section 1 of the Interim Empty Nest Policy of the USFWS, Region 2, states that if the nest is completely inactive at the time of destruction or movement, a permit is not required in order to comply with the MBTA. The nesting bird season begins in March and extends through August.

WILDLIFE OF SPECIAL CONCERN

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. This database can be accessed through the Arizona Heritage Geographic Information System (AZHGIS) online environmental review tool.[4]

SWCA accessed the AZHGIS database and received an environmental review tool response document and receipt, which is included in Appendix C of the BA prepared for this project.[5] The receipt portion of the response document provides information regarding special-status species, the presence or absence of designated critical habitat (for species protected under the ESA), special handling guidelines for wildlife, and preliminary project-type recommendations, as given by the AGFD. SWCA and its clients are not required to complete the receipt portion of this document. However, SWCA will complete and submit the receipt portion to AGFD if we believe additional AGFD departmental review is necessary concerning this project (after conferring with the client) or upon client request.

The AZHGIS-generated response document indicated that the project area does not occur in or near any proposed or designated critical habitat. In addition, the response document indicated that there are no records of special-status species occurring within 3 miles of the project area. There is 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.

OTHER WILDLIFE SPECIES OBSERVED

Wildlife species observed in the project area include the bird species listed above. No additional wildlife species were observed within the project area during the survey.

FEDERAL AVIATION ADMINISTRATION WILDLIFE STRIKE DATA

Wildlife populations in and around airport facilities can pose a serious threat to human safety and can cause substantial damage to aircraft. Populations of many wildlife species commonly involved in aircraft strikes have increased in recent decades, with a correlating increase in risk to aircraft. The Federal Aviation Administration (FAA) has compiled a database consisting of wildlife strike report information voluntarily submitted to the FAA by pilots, airlines, airports, and others between 1990 and the present day.[6] The database is designed to help researchers learn more about wildlife strike problems and provide information regarding potential risk factors, risk reduction measures, and to evaluate the effectiveness of these measures. According to the FAA wildlife strike database, no strike reports have been submitted for the Wickenburg Municipal Airport.

[4] Arizona Heritage Geographic Information System (AZHGIS). 2014. Arizona Game and Fish Department online environmental review tool. Available at: http://www.azgfd.gov/hgis. Accessed May 8, 2014.

[5] SWCA, *op. cit.*

[6] Federal Aviation Administration (FAA). 2014. FAA Wildlife Strike Database. Available at: http://wildlife.faa.gov/. Accessed May 14, 2014.

RECOMMENDATIONS

Because protected native plants are present in the project area, it is recommended that the Notice of Intent to Clear Land form be submitted to the ADA at least 30 days prior to vegetation-removal activities, in accordance with the Arizona Native Plant Law (ARS 3-904). As noted on page 2 of the Notice of Intent to Clear Land form (see Appendix B), the amount of advance notice required for submittal of the form is dependent on the amount of land that will be cleared. Refer to the Arizona Native Plant Law for additional details. A copy of this form is included in Appendix B.

There is potential for nesting birds to occur within the project area. Trees and shrubs that have previously been used for nesting are present in the project area. If an active nest is observed before or during construction, measures should be taken to protect the nest from destruction and to avoid a violation of the MBTA.

The results and conclusions of this BRM represent SWCA scientists' best professional judgment, based on information provided by the project proponent, applicable agencies, and other sources during the course of this study. No other warranty, expressed or implied, is made. Field notes are available at SWCA's Phoenix office in the project file. The SWCA project number is 28284.

APPENDIX A

NRCS Soil Information

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Aguila-Carefree Area, Arizona, Parts of Maricopa and Pinal Counties

Wickenburg Airport

May 12, 2014

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Aguila-Carefree Area, Arizona, Parts of Maricopa and Pinal Counties
Survey Area Data: Version 8, Dec 15, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 1, 2010—May 15, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Aguila-Carefree Area, Arizona, Parts of Maricopa and Pinal Counties (AZ645)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
38	Eba-Continental-Cave association, low precipitation, 3 to 20 percent slopes	15.4	100.0%
Totals for Area of Interest		**15.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Aguila-Carefree Area, Arizona, Parts of Maricopa and Pinal Counties

38—Eba-Continental-Cave association, low precipitation, 3 to 20 percent slopes

Map Unit Setting

Elevation: 1,800 to 3,000 feet
Mean annual precipitation: 8 to 10 inches
Mean annual air temperature: 66 to 70 degrees F
Frost-free period: 180 to 270 days

Map Unit Composition

Eba and similar soils: 40 percent
Continental and similar soils: 25 percent
Cave and similar soils: 20 percent

Description of Eba

Setting

Landform: Fan terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed alluvium

Typical profile

A - 0 to 3 inches: slightly alkaline, very gravelly loam
Btk - 3 to 36 inches: moderately alkaline, very gravelly clay
2Bk - 36 to 60 inches: moderately alkaline, extremely gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.0 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: Saline Subirrigated 3-7" p.z. (R040XC315AZ)

Description of Continental

Setting

Landform: Fan terraces
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed alluvium

Typical profile

A - 0 to 1 inches: moderately alkaline, clay loam
Btk - 1 to 60 inches: moderately alkaline, clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 9.0 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: Deep Sand 3-7" p.z. (R040XC304AZ)

Description of Cave

Setting

Landform: Fan terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed alluvium

Typical profile

A - 0 to 1 inches: moderately alkaline, gravelly loam
Bk - 1 to 14 inches: moderately alkaline, loam
Bkm - 14 to 20 inches: , cemented material
Ck - 20 to 60 inches: moderately alkaline, very gravelly sandy loam

Properties and qualities

Slope: 3 to 20 percent
Depth to restrictive feature: 8 to 19 inches to petrocalcic
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (2.0 to 4.0 mmhos/cm)
Available water storage in profile: Very low (about 2.1 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: Limy Upland 3-7" p.z. Deep (R040XC311AZ)

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United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX B

Arizona Department of Agriculture
Notice of Intent to Clear Land Form

Print Form

Arizona Department of Agriculture (ADA)
Licensing and Registration Section
1688 West Adams, Phoenix, Arizona 85007
Phone: (602) 542-6408
Fax: (602) 542-0466

Notice of Intent to Clear Land — ARS § 3-904

Pursuant to A.R.S. § 3-904 the undersigned, as Owner of the Property described herein, gives this Notice of Intent to Clear Land of protected native plants.

1. **Owner/landowner's agent.** The owner or landowner's agent of the Property upon which protected native plants will be affected:

   Owner's Name _____ Phone _____

   Address _____

   Agent's Name _____ Phone _____

   Address _____

2. **Property.** The description and location of the Property upon which protected native plants will be affected:

   County _____

   Name of Property/Project _____

   Address _____

   Physical Location (attach map) _____

   (Note: Map must also show surrounding land for 1/2 mile in each direction)

   Tax Parcel ID Nos. _____

   Legal Description (or attach copy) _____

   Number of Acres to be Cleared _____

3. **Owner's Intent.** Landowner's intentions when clearing private land of protected native plants.

   ☐ Owner intends to allow salvage of the plants, and agrees to be contacted by native plant salvagers.

   ☐ Owner intends to transplant the plants onto the same property, or to another property he also owns.

   ☐ Owner has already arranged for salvage of the plants.

   ☐ Owner does not intend to allow salvage of the plants.

   ☐ Other _____

4. **Approximate starting date.** _____
   (See notice period listed on reverse side)

The information contained in this application is true and accurate to the best of my knowledge. I understand that providing false information is a felony in Arizona.

Signature_____ **Date**_____

Notice to salvagers: Consent of the landowner is required before entering any lands described in this notice.

Explanation Of This Form

1. **Notice of Intent to Clear Land.**
   The majority of the desert plants fall into one of five groups specially protected from theft, vandalism or unnecessary destruction. They include all of the cacti, the unique plants like Ocotillo, and trees like Ironwood, Palo Verde and Mesquite. In most cases the destruction of these protected plants may be avoided if the private landowner gives prior notice to the Arizona Department of Agriculture.

2. **Notice Period.**
   When properly completed, this form is to be sent to the Department within the time periods described below. Landowners/ developers are encouraged to salvage protected native plants whenever possible.

3. **Information to Interested Parties.**
   The information in this notice will be posted in the applicable county office of the Department and mailed to those parties (salvage operators, revegetation experts) who have an interest in these plants and may approach the landowner with the possibility of saving the plant(s) from unnecessary destruction.

Notice to Landowner:

1. The owner may not begin destruction of protected native plants until he receives confirmation from the Arizona Department of Agriculture and the time prescribed below has elapsed. The "Confirmed" stamp only verifies that the Notice has been filed.

Size of area over which the Destruction of Plants will occur	Length of Notice Period
Less than one acre	20 days, oral or written
One acre or more, but less than 40 acres	30 days, written
40 acres or more	60 days, written

2. If you are clearing land over an area of less than one acre, oral notice may be given by calling the applicable county office at the telephone number given below.
3. If the land clearing or plant salvage does not occur within one year, a new Notice is required.
4. The law includes two exemptions from the notice requirement:
   - Clearing of native plants which occur in the normal and ongoing practices of mining, farming and livestock raising operations.
   - Clearing of native plants on individually owned residential property of ten acres or less, where initial construction has occured.
5. This Notice must be sent to the applicable district office of the Department of Agriculture at the address given below:

   Phoenix Office
   1688 W. Adams
   Phoenix, AZ 85007
   (602) 364 - 0935

   Tucson Office
   400 W. Congress Ste.124
   Tucson, AZ 85701
   (520) 628-6317

   M-F 8a.m.- 11:30 a.m.

Notice to salvagers: Consent of the landowner is required before entering any lands described in this notice.

rev 11/10

Appendix B

Section 106 Consultation and Cultural Resources Survey Report

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SHPO-2014-1168 (122346)

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

Western-Pacific Region
Airports Division

RECEIVED
NOV 07 2014
Federal Aviation Administration
Western-Pacific Region
Airports Division - AWP-600

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

RECEIVED
OCT 24 2014
ARIZONA STATE HISTORIC
PRESERVATION OFFICE

October 21, 2014

Mr. James Garrison
State of Arizona
Arizona State Parks
1300 W. Washington Street
Phoenix, Arizona 85007

Attention: Mr. David Jacobs

Dear Mr. Garrison:

Proposed Aircraft Parking Apron Fill Material Borrow Site
Wickenburg Municipal Airport
Wickenburg, Maricopa County, Arizona
Section 106 Coordination

The Town of Wickenburg (Town) and the Federal Aviation Administration (FAA) are preparing federal environmental documentation under the National Environmental Policy Act (NEPA) of 1969, as amended, for the Town's proposed use of an on-airport borrow site on the eastern end of the airport to construct an aircraft parking apron at Wickenburg Municipal Airport.

In 2011, the Town proposed construction of a new aircraft parking apron to accommodate 27 aircraft. The FAA issued a Finding of No Significant Impact for this proposed project on April 12, 2011. Since that time, the original site for fill material became unavailable. The Town subsequently identified a new site on the airport that would be able to provide the fill material needed for the proposed apron. FAA and the Town are preparing a Supplement to the Final Environmental Assessment (EA) to evaluate the potential environmental impacts associated with the proposed use of the new borrow site.

The Federal action requiring compliance with NEPA is approval of the Town's Airport Layout Plan depicting the proposed undertaking and approval of further processing of an application for federal financial assistance to pay for the proposed undertaking.

1. Background and Area of Potential Effects

The FAA is providing the following information on how FAA determined the boundaries of the Area of Potential Effects (APE) for the proposed undertaking. FAA used the area south of the parallel taxiway and east of the proposed aircraft parking apron where the fill material and haul road would be used to delineate the APE. FAA determined these boundaries through consultation with the Town on the extent of the proposed excavation. The Proposed Undertaking is the use of an estimated 5.4 acres of undeveloped land located on Wickenburg Municipal Airport property, approximately 375 feet to 525 feet

south of the runway centerline as a borrow area for construction material for the proposed apron project. This borrow area would be accessed from the proposed apron by an approximate 2,900 foot long (0.55 mile) haul route which follows an existing gravel and dirt road previously used for maintenance and access. Once loaded with fill material, trucks would be driven along the south shoulder of parallel Taxiway A to return to the construction site as shown on the attached exhibit. In this manner, traffic flow between the construction site and the borrow area can be managed effectively.

At the conclusion of the project, the borrow area and haul road would be stabilized with erosion control materials and/or methods determined by the project's General Construction Permit under the Arizona Pollutant Discharge Elimination System (AZPDES) program and in compliance with FAA Advisory Circular (AC) 150/5370-10F, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion and Siltation Control* (FAA, 2011).

Since the proposed undertaking will not affect the number or type of aircraft using the airport, FAA only delineated a physical disturbance area. There would be no change in the indirect effects from aircraft noise resulting from the proposed undertaking. FAA will include this information in the environmental documentation for the proposed project.

Enclosure 1 shows the APE for the proposed pavement reconstruction along with the haul road and staging area. .

Pursuant to Title 36, Code of Federal Regulations, Section 800.4, *Identification of Historic Properties,* **the FAA is seeking concurrence with the APE for the proposed undertaking from the Arizona State Historic Preservation Officer.**

2. Native American Consultation.

FAA used a listing of Native American contacts for the proposed undertaking provided by your office. On September 10, 2014, FAA sent letters to Colorado River Indian Tribes, Yavapai-Prescott Indian Tribe, Yavapai-Apache Nation, Tohono O'odham Nation, Salt River Pima-Maricopa Indian Community, Hopi Tribe, Gila River Indian Community, Fort Mojave Indian Tribe, and the Ak-Chin Indian Community by U.S. Mail. FAA provided response forms in stamped self-addressed envelopes. FAA received two email replies asking for a copy of the Cultural Resource Survey, a letter from the Gila River Indian Community (GRIC) and one response form from the Hopi Tribe. GRIC asked for a copy of the archaeological survey report for their records and defers to the Salt River Pima-Maricopa Indian Community as the lead in the consultation process. We did not receive a reply from the Salt River Pima- Maricopa Indian Community. The Hopi tribe indicated they had no interest associated with the proposed project and further consultation with them is not required. We received no other replies.

3. National Register Eligibility Determinations.

The project area was surveyed on May 9, 2014 by a qualified archaeologist from SWCA, Inc. using standard archaeological techniques following Arizona State Museum guidelines for survey coverage and site recording methodologies. The survey entailed systematically walking the project area in parallel transects spaced no more than 20 meters (66 feet) apart. Evidence for cultural resources was sought in the form of artifacts (e.g., ceramics, lithics, historic metals, or glass) or features (concentration of fire-affected

rock, charcoal-stained soil, prehistoric or historic structures, or other cultural anomalies). Approximately 8.1 acres were surveyed.

The archaeological survey of the project area resulted in the identification of one isolated occurrence and no sites. The isolated occurrence is a single rhyolite secondary flake. It was located in the haul road footprint and was recorded and left in place.

Based on the information contained in the Cultural Resources Report, FAA has determined there are no historic properties within the APE for the proposed undertaking. **FAA seeks the Arizona SHPO's concurrence with this determination of eligibility.**

4. Assessment of Adverse Effects on Historic Properties.
Since the FAA has determined the are no historic properties listed or eligible for listing on the NRHP, and no archaeological sites have been identified within the APE, the FAA finds, the proposed undertaking of excavation of fill material near the end of Runway 23 at Wickenburg Municipal Airport will not affect any properties listed or eligible for listing on the NRHP under 36 CFR § 800.4(d)(1). **FAA seeks the SHPO's concurrence with this finding.**

Based on the above information, FAA finds that the project may proceed with a finding of "no historic properties affected." FAA asks the SHPO to review the information provided in this letter, the enclosed APE drawing, and Archaeological Survey Report dated September 2014. If you find the APE and Archaeological Survey Report adequate and agree with the FAA's eligibility determination and finding of project effect, please indicate your concurrence by signing below.

If you have any further questions about this matter, please call me at 310/725-3615.

Sincerely,

David B. Kessler, AICP
Regional Environmental Protection Specialist

Enclosures: Enclosure 1 – Figure showing Area of Potential Effect.
Enclosure 2 – Archaeological Survey dated September 2014
Cc:PHX-600; Town of Wickenburg

I concur with FAA's NRHP eligibility determinations and findings of effect by the proposed undertaking as described above.

Arizona SHPO 31 OCT 14 **Date**

14EA09-3A-5/15/14

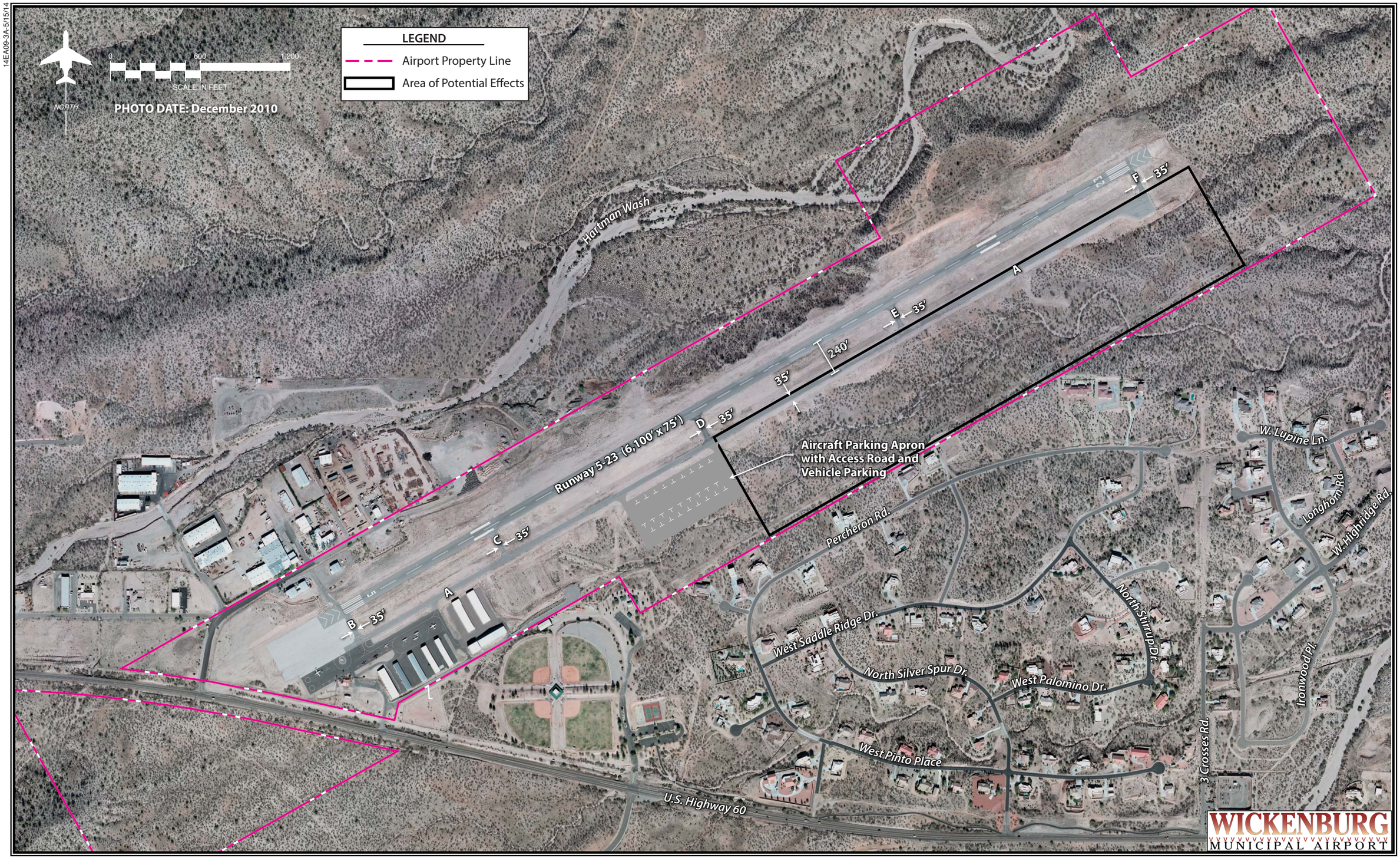


Exhibit 4A
AREA OF POTENTIAL EFFECTS

SWCA®
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

Archaeological Survey of 8.1 Acres for a Proposed Haul Road and Borrow Area at the Wickenburg Airport, Maricopa County, Arizona

Submitted to

Coffman Associates

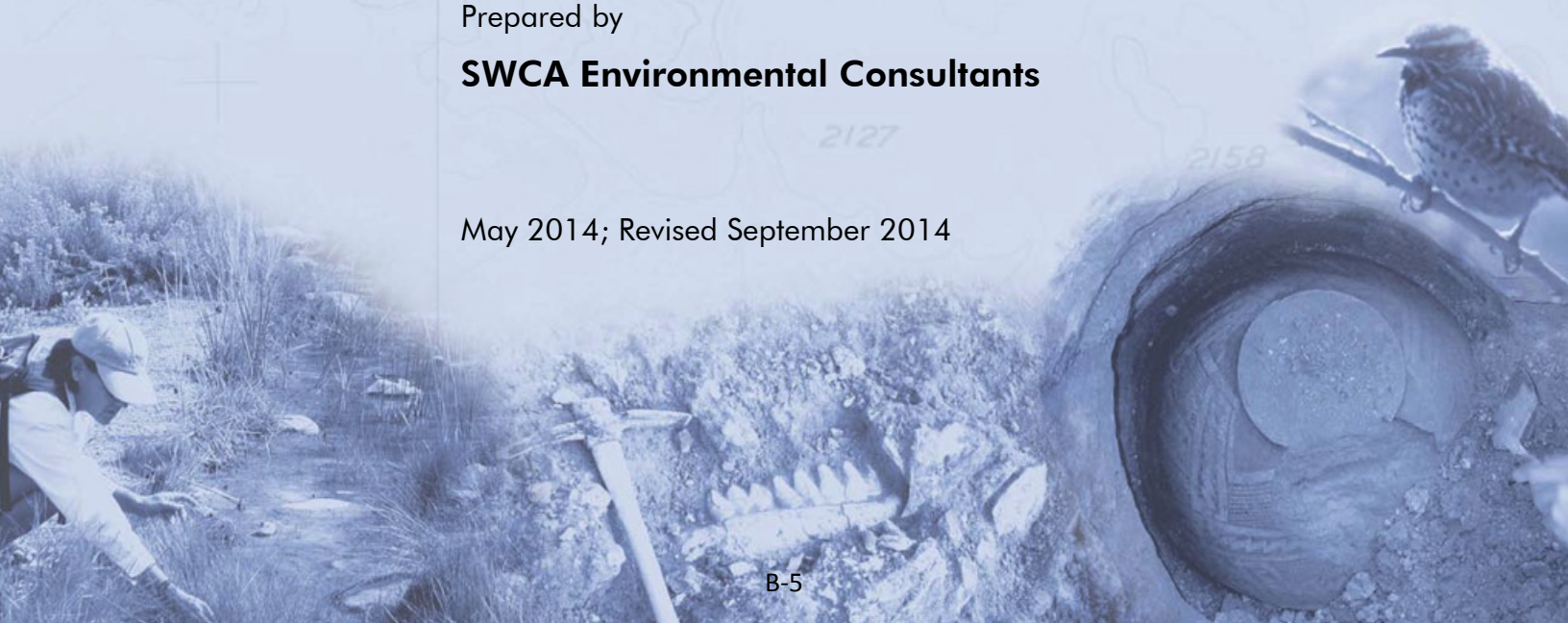
Prepared for

Federal Aviation Administration

Prepared by

SWCA Environmental Consultants

May 2014; Revised September 2014



ARCHAEOLOGICAL SURVEY OF 8.1 ACRES FOR A PROPOSED HAUL ROAD AND BORROW AREA AT THE WICKENBURG AIRPORT, MARICOPA COUNTY, ARIZONA

Submitted to

Coffman Associates
4835 East Cactus Road, Suite 235
Scottsdale, Arizona 85254
Attn: Judi Krauss
(602) 993-6999

Prepared for

U.S. Department of Transportation-Federal Aviation Administration

Prepared by

David M. R. Barr

SWCA Environmental Consultants
343 West Franklin Street
Tucson, Arizona 85701
(520) 325-9194
www.swca.com

Arizona Antiquities Act Blanket Permit No. 2014-022bl

SWCA Project No. 28284

SWCA Cultural Resources Report No. 14-241

May 2014; Revised September 2014

PROJECT ABSTRACT

Report Title. Archaeological Survey of 8.1 Acres for a Proposed Haul Road and Borrow Area at the Wickenburg Airport, Maricopa County, Arizona

Report Date. May 2014; Revised September 2014

Agency Name. Federal Aviation Administration (FAA); Town of Wickenburg

Permit Number. Arizona Antiquities Act Blanket Permit No. 2014-022bl

Land Ownership. Municipal (Town of Wickenburg)

Project Description. Wickenburg Municipal Airport (Airport) is proposing to construct a midfield aircraft parking apron on the southeast side of Runway 5-23 and an associated access road. To facilitate this construction, additional fill is needed for grading and compaction purposes. The Airport is proposing the construction of a haul road and borrow area northeast of the proposed parking apron and southeast of the runway on airport property. Once the trucks are loaded, an egress route leaving that borrow area will follow the shoulder of the parallel taxiway of Runway 5-23 back to the construction area. SWCA Environmental Consultants (SWCA) was subcontracted by Coffman Associates to complete an archaeological pedestrian survey of the proposed haul road, borrow area, and egress route to assist the FAA with its National Historic Preservation Act Section 106 review responsibilities. A larger area surrounding the surveyed area has been identified as the Area of Potential Effects (APE). This area of approximately 50 acres will not be affected during the construction.

Project Number. Arizona State Museum Accession No. 2014-233

Project Location. The project area is located in Sections 4, 5, and 8, Township 7 North, Range 5 West, Maricopa County, Arizona, Gila and Salt River Baseline and Meridian, on the U.S. Geological Survey Vulture Peak, Arizona, 7.5-minute quadrangle.

Number of Acres Surveyed. 8.1 acres: 40 feet × 2,920 feet (2.7 acres) for haul road and 5.4 acres for borrow area

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

NRHP-Ineligible Properties. No sites; one isolated occurrence (IO)

Recommendations. An archaeological survey of the project APE resulted in the identification of one IO, a rhyolite flake, which is ineligible for listing in the NRHP. No new or previously documented archaeological sites were found.

SWCA recommends that this project will have a finding of no historic properties affected. 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

Wickenburg Municipal Airport (Airport) is proposing to construct a midfield aircraft parking apron on the southeast side of Runway 5-23 and an associated access road. To facilitate this construction, additional fill is needed for grading and compaction purposes. The Airport is proposing the construction of a haul road and borrow area northeast of the proposed parking apron and southeast of the runway on airport property. Once the trucks are loaded, an egress route leaving that borrow area will follow the shoulder of the parallel taxiway of Runway 5-23 back to the construction area. SWCA Environmental Consultants (SWCA) was subcontracted by Coffman Associates to complete an archaeological pedestrian survey of the proposed haul road, borrow area, and egress route to assist the FAA with its National Historic Preservation Act Section 106 review responsibilities. A larger area surrounding the surveyed area has been identified as the Area of Potential Effects (APE). This area of approximately 50 acres will not be affected during the construction.

The project area is located in Sections 4, 5, and 8, Township 7 North, Range 5 West, Maricopa County, Arizona, Gila and Salt River Baseline and Meridian, on the U.S. Geological Survey (USGS) Vulture Peak, Arizona, 7.5-minute quadrangle (Figures 1 and 2).

ENVIRONMENTAL SETTING

The project area is located in the Arizona Upland subdivision of the Sonoran Desert biome, as defined by Brown (1994). Vegetation consists of low woodland trees, with shrubs and perennial succulents dominating the understory (Brown 1994). Vegetation identified within the project area includes creosote bush (*Larrea tridentata* var. *tridentata*) and velvet mesquite (*Prosopis velutina*). Less common species include canotia (*Canotia holacantha*), triangle-leaf bursage (*Ambrosia deltoidea*), ratany (*Krameria* sp.), barrel cactus (*Ferocactus wislizeni*), fluffgrass (*Dasyochloa pulchella*), desert broom (*Baccharis sarothroides*), flatcrown buckwheat (*Eriogonum deflexum* var. *deflexum*), and globemallow (*Sphaeralcea* sp.). Xeroriparian vegetation along the ephemeral wash contains many of the same upland species but also includes catclaw acacia (*Acacia greggii* var. *greggii*), blue paloverde (*Parkinsonia florida*), and yellow paloverde (*P. microphylla*). Non-native species observed within the project area include Mediterranean grass (*Schismus* sp.), and red brome (*Bromus rubens*). Fauna such as jackrabbit, various birds, and small reptiles were noted during the pedestrian survey.

Wickenburg is in 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. Elevation in the project area is 2,320 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, evidence 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 (Plog 1997). The Archaic in this area is generally

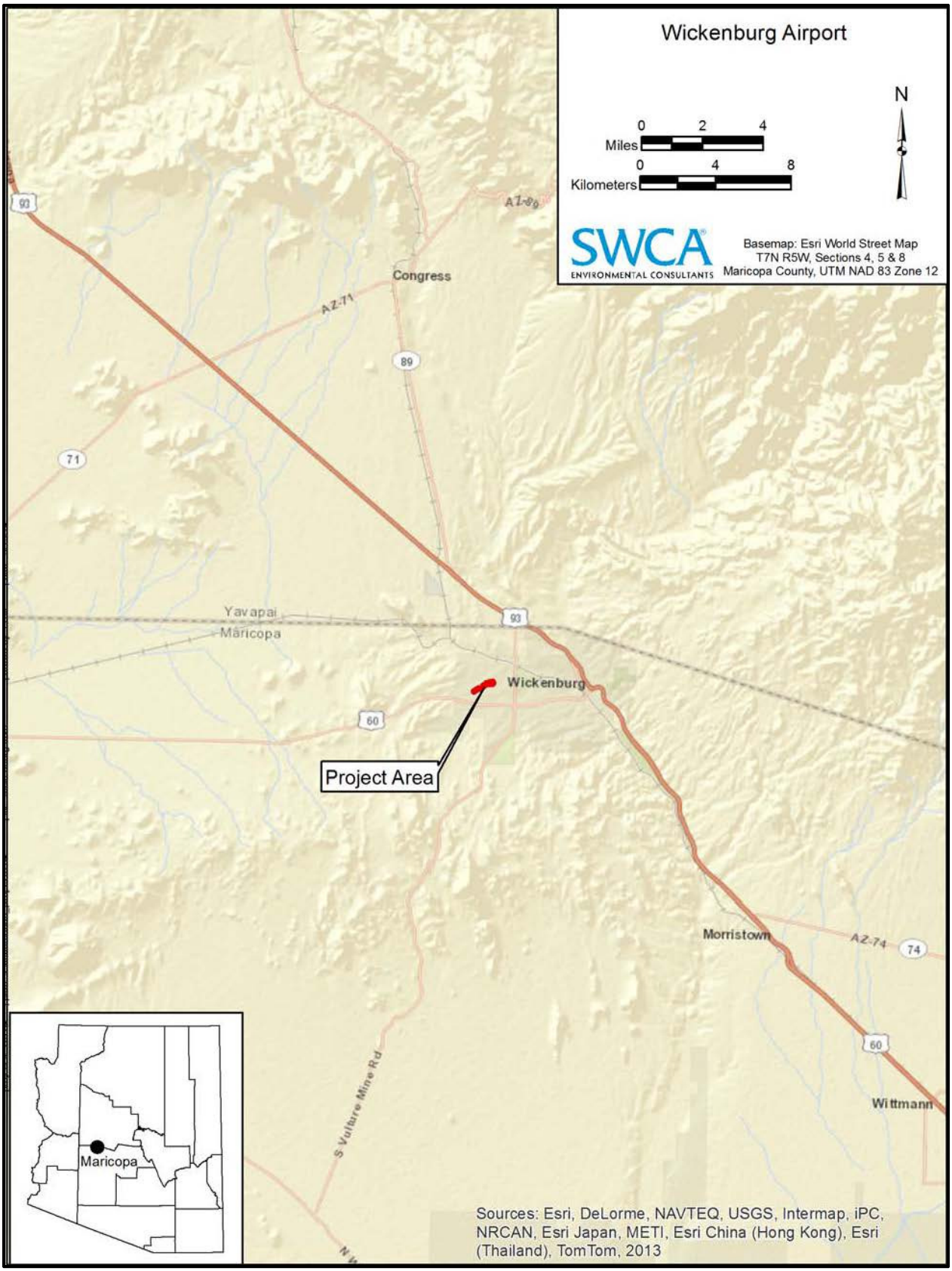


Figure 1. Project location.

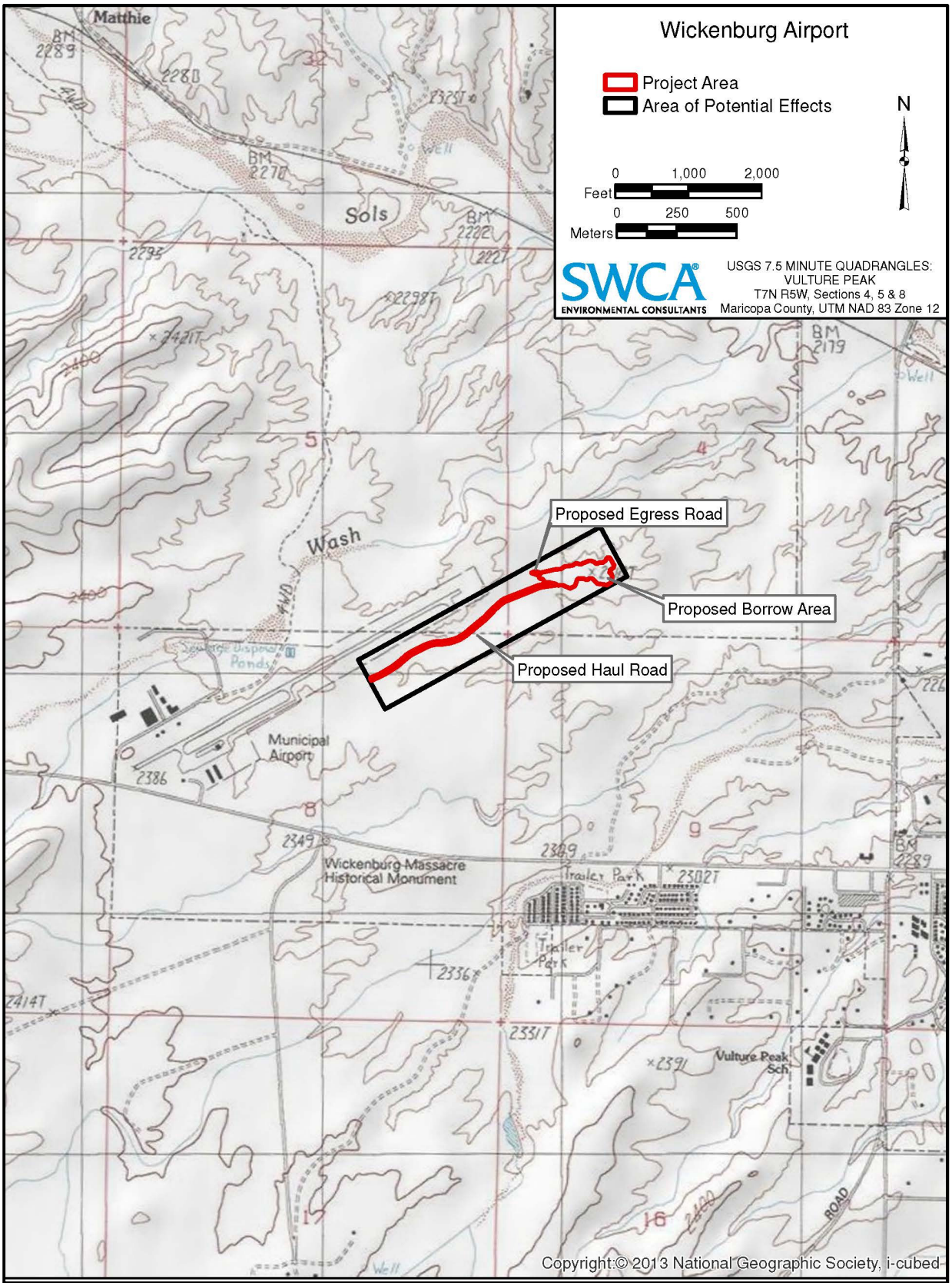


Figure 2. Project area.

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 descendents 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 defeated 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 who would develop the town that bears Wickenburg's 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 had become 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 who was 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. Route (U.S.) 60.

In the 1920s, the town focused its attention toward 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 as the "dude ranch capital of the world," and during World War II, many ranches in the area prospered 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, SWCA 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. The National Park Service National Register Information Systems Database was also consulted for National Register of Historic Properties (NRHP)-listed properties or districts within a 1-mile radius of project area.

The records search showed that 13 archaeological surveys have been conducted within 1 mile of the project area (Table 1, Appendix A). One survey (ASM Accession No. 2000-395.ASM) partially overlaps the borrow area component of this project. The project was conducted in support of the Wickenburg Airport Expansion project, and no cultural materials were identified in the current project area. Six sites have been identified within a 1-mile radius of the project area (Table 2; see Appendix A).

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

Agency Number	Project Name	Report Reference
1988-12.ASM	Wickenburg Dump	Bayman (1988)
1993-370.ASM	Flying E Ranch Survey	Hohmann and White (1993)
1995-213.ASM	Arizona Department of Transportation/U.S. 60 Wickenburg West	Stone (1995)
1999-46.ASM	James Fence	Rozen (1999)
2000-303.ASM/SHPO-2000-1897	Wickenburg–Aguila 69-kV Rebuild	Crownover (2000)
2000-395.ASM/SHPO-2000-1934	Wickenburg Airport Expansion	Punzmann (2000)
2003-246.ASM/SHPO-83169	Southwest Fibernet Project Fiber Optic Right-of-Way–Electric Lightwave	Foster et al. (1993)
2003-318.ASM	Electric Lightwave Right-of-Way Survey	Schroeder (2002)
2003-1099.ASM	Wickenburg U.S. 60 Multi-use Path	Lonardo (2003)
2003-1109.ASM	U.S. 60–Aguila to Wickenburg	Webb (2001)
2007-880.ASM	Wickenburg Sewer Line	Fackler (2008)
2008-31.ASM	Wickenburg Sewer Line	Christenson (2008)
2010-26.ASM	Wickenburg Airport Phase II	Kmetz (2010)

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

Site Number	Site Description	NRHP Eligibility*
AZ N:3:32(ASM)	The Santa Fe, Prescott, and Phoenix Railway Line, nicknamed the Peavine, was a standard-gauge single track rail line that was built in 1892–1893. It was abandoned in 1983. Associated features include the rail bed, bridges, water control devices, communication system, and associated historic trash.	Determined eligible
AZ T:1:9(ASM)	Historic period trash dump consisting of small milk cans, glass, and a rock ring. Based on the observed maker's marks, the artifacts date from 1915–1930.	Eligible
AZ T:1:10(ASM)	Historic trash dump consisting of blue glass fragments and tin cans.	Eligible
AZ T:1:11(ASM)	Historic grave outlined with white quartz cobbles and covered in white rocks. Date of burial and person interred is unknown.	Eligible
AZ T:1:12(ASM)	Historic stagecoach road with rock retaining wall.	Not evaluated
AZ V:2:101(ASM)	Discontinuous segments of the abandoned 1930s alignment of U.S. 60 and features associated with that alignment.	Eligible

* Data were obtained from AZSITE and may represent State Historic Preservation Office determinations or recorder recommendations.

Historical Map Research

In addition to the AZSITE database, Historical maps were also consulted for the project area. The General Land Office (GLO) map of Township 7 North, Range 5 West, filed in 1872, depicts the small community of Wickenburg about 3 miles east of the project area, but no structures, farm fields, ranches, roads, or other facilities are shown in the area. The USGS 1961 Vulture Mountains 15-minute quadrangle depicts U.S. 60/70 south of the project area, and the Atchison, Topeka, and Santa Fe Railroad northeast of the project. However, the Airport, which was constructed in 1968, is not shown on the map. The map, however, does depict the location along U.S. 60/70 of the roadside historical monument for the Wickenburg Massacre. The Wickenburg Massacre was the November 5, 1871, ambush of a stagecoach about 6 miles west of Wickenburg. The stage driver and five of the seven passengers were killed in the ambush, which was blamed on "Apache-Mohaves" [Yavapai] from the Date Creek Reservation; however, there is some speculation that it was committed by Mexican bandits disguised as Native Americans (Farish 1918). The roadside memorial was dedicated in 1937, and the massacre site itself is approximately 3 miles west of the airport (Wickenburg 2008).

PROJECT METHODS

SWCA archaeologist Eric Petersen conducted a pedestrian survey of the project area on May 9, 2014, resulting in a total of one person–field day. General conditions for the survey were excellent, and ground visibility was generally 95 percent. The survey was conducted using standard archaeological techniques following ASM guidelines for survey coverage and site recording methodologies (SHPO 2008). According to the standards for pedestrian survey established by ASM, a person conducting a pedestrian survey can achieve 100 percent coverage of a parcel by walking a series of systematic transects spaced no more than 20 m (66 feet) apart. The survey entailed systematically walking the project area in parallel transects spaced no more than 20 m 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-affected rock, charcoal-stained soil, prehistoric or historic structures, or other cultural anomalies). The archaeologist surveyed 8.1 acres.

The ASM has established standards for evaluating materials identified during archaeological surveys. Briefly, properties of archaeological interest must contain the remains of past human activity that are at least 50 years old. Beyond this, two classes of findings are recognized, the site and the isolated occurrence (IO). To qualify as a site, a property must contain, within an area no more than 50 feet in diameter, 30 or more artifacts of a single type, unless all pieces originate from a single source (e.g., one broken bottle or ceramic vessel); or 20 or more artifacts when multiple types are present, or any number of artifacts, when a single fixed feature is present; or multiple fixed features, with or without any associated artifacts. The site can be larger than 50 feet in diameter as long as any 50-foot-diameter portion of the site meets one of these conditions. Artifact finds that do not meet these criteria but that are over 50 years old may be designated IOs. Archaeological sites are accurately mapped and plotted using a handheld global positioning system (GPS) device, photographed, and recorded using the standard ASM form. The precise locations of the IOs are point located and recorded using a handheld GPS unit. Any identified artifacts were field-analyzed and then returned to their original locations.

National Register Criteria for Evaluation

Four criteria are applied in the evaluation of cultural properties for inclusion in the NRHP (36 Code of Federal Regulations Title [CFR] § 60.4). Normally, a significant property must be at least 50 years old and meet at least one of these four criteria to be considered eligible for listing in the NRHP. According to the NRHP criteria, the quality of significance in American history, architecture, archaeology, engineering,

and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

A. that are associated with events that have made a significant contribution to the broad patterns of our history; or

B. that are associated with the lives of persons significant in our past; or

C. that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguished entity whose components may lack individual distinction; or

D. that have yielded, or may be likely to yield, information important in prehistory or history.

PROJECT RESULTS

The survey of the project area resulted in the identification of a single IO (Figure 3; see Appendix B). The IO is a single rhyolite secondary flake. It was located in the haul road footprint and was recorded and left in place.

SUMMARY AND MANAGEMENT RECOMMENDATIONS

An archaeological survey of the project APE resulted in the identification of one IO, a rhyolite flake, which is ineligible for listing in the NRHP. No new or previously documented archaeological sites were found.

SWCA recommends that this project will have a finding of no historic properties affected. 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.

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

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APPENDIX A

Previous Research Map of Project Area

Do Not Distribute—Contains Confidential Site Location Information

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

APPENDIX B

Location of Identified Cultural Resources

Do Not Distribute—Contains Confidential Location Information

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

Appendix C

Air Quality Model Output Results

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MOVES2010b
Emissions Factors
Location: Maricopa County
Month: July
Hour: 17
Temperature: 104.8 F
Humudity: 20.6

polllutant_name	processID	sourceTypeID	temperature	relHumidity	ratePerDistance (g/mi)	Fuel Type	Vehicle Type
Carbon Monoxide (CO)	1	52	104.8	20.6	0.481121	diesel	Single Unit Long Haul
Oxides of Nitrogen (NOx)	1	52	104.8	20.6	3.29391	diesel	Single Unit Long Haul
Primary Exhaust PM10 -Total	1	52	104.8	20.6	0.017284	diesel	Single Unit Long Haul
Primary Exhaust PM2.5 -Total	1	52	104.8	20.6	0.016766	diesel	Single Unit Long Haul
Sulfur Dioxide (SO2)	1	52	104.8	20.6	0.00766897	diesel	Single Unit Long Haul
Volatile Organic Compounds	1	52	104.8	20.6	0.0497103	diesel	Single Unit Long Haul
Carbon Monoxide (CO)	1	31	104.8	20.6	3.21963	gas	Passenger Truck
Oxides of Nitrogen (NOx)	1	31	104.8	20.6	0.173637	gas	Passenger Truck
Primary Exhaust PM10 -Total	1	31	104.8	20.6	0.00520397	gas	Passenger Truck
Primary Exhaust PM2.5 -Total	1	31	104.8	20.6	0.00479183	gas	Passenger Truck
Sulfur Dioxide (SO2)	1	31	104.8	20.6	0.00562156	gas	Passenger Truck
Volatile Organic Compounds	1	31	104.8	20.6	0.0329806	gas	Passenger Truck
Carbon Monoxide (CO)	1	53	104.8	20.6	0.474387	diesel	Single Unit Short Haul
Oxides of Nitrogen (NOx)	1	53	104.8	20.6	3.29391	diesel	Single Unit Short Haul
Primary Exhaust PM10 -Total	1	53	104.8	20.6	0.0164266	diesel	Single Unit Short Haul
Primary Exhaust PM2.5 -Total	1	53	104.8	20.6	0.0159342	diesel	Single Unit Short Haul
Sulfur Dioxide (SO2)	1	53	104.8	20.6	0.00705846	diesel	Single Unit Short Haul
Volatile Organic Compounds	1	53	104.8	20.6	0.0499619	diesel	Single Unit Short Haul

Appendix D

Notice of Availability and Comments Received

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TOWN OF WICKENBURG
NOTICE OF AVAILABILITY OF A DRAFT SUPPLEMENT TO THE FINAL ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED MID-FIELD AIRCRAFT PARKING APRON AT WICKENBURG MUNICIPAL AIRPORT

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:

December 3, 2014

KEVIN CLOE
PUBLISHER

Subscribed and sworn to before me this 3rd day of **December, 2014.**

Notary Public My commission expires September 2, 2018

JEAN WRIGHT
NOTARY PUBLIC, ARIZONA
MARICOPA COUNTY
My Commission Expires
September 2, 2018

NOTICE OF AVAILABILITY OF A DRAFT SUPPLEMENT TO THE FINAL ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED MID-FIELD AIRCRAFT PARKING APRON A WICKENBURG MUNICIPAL AIRPORT

The Town of Wickenburg, as the sponsor for the Wickenburg Airport, has prepared a Draft Supplement to the Final Environmental Assessment (Final EA) for the proposed Mid-Field Aircraft Parking Apron project at Wickenburg Municipal Airport. The Federal Aviation Administration (FAA) is the Lead Agency under the National Environmental Policy Act (NEPA).

In 2011, the Town proposed construction of a new aircraft parking apron to accommodate 27 aircraft. FAA issued a Finding of No Significant Impact for the proposed project on April 12, 2011. Since that time, the Town has identified an area on the existing airport that would be able to provide the fill material needed for the proposed apron. The Supplement to the Final EA, therefore, evaluates the potential environmental impacts associated with the proposed use of the new borrow area and proposed haul route. This document will supplement information already disclosed in the Final EA approved by the FAA in April 2011.

Potential environmental impacts evaluated in detail within the Supplement include those associated with: Construction Impacts; Fish, Wildlife, and Plants; Greenhouse Gases and Climate; Historical, Architectural, Archaeological, and Cultural Resources; Water Quality; and Wetlands and Waters of the U.S. Cumulative impacts are also addressed. Based on the supplemental analysis, there are no new significant impacts that would result from the use of the onsite borrow area and haul route. The FAA has also coordinated with the State Historic Preservation Officer to confirm the absence of impacts to Section 106 historical, archaeological and cultural resources.

Beginning December 3, 2014, a copy of the Draft Supplement to the Final EA as well as the Final EA itself will be available for public review at the following locations during normal business hours:

- Wickenburg Town Hall, 155 N. Tegner Street, Suite A, Wickenburg, AZ 85390
- Wickenburg Public Library, 164 E. Apache Street, Wickenburg, AZ 85390
- FAA Phoenix Airports District Office, 3800 N. Central Avenue, Suite 1025 (10th Floor), Phoenix, AZ 85012
- FAA Western Pacific Region, Airports Division, 15000 Aviation Boulevard, Lawndale, CA 90261

The document can also be accessed online through the Town of Wickenburg's Airport website at the following address: http://www.wickenburgaz.org

Written comments regarding the adequacy of the information disclosed within the Draft Supplement to the Final EA will be accepted at the address provided below until January 5, 2015. Please mail your comments to the following address:

Town of Wickenburg, Community Development Department, 155 N. Tegner Street, Wickenburg, AZ 85390, Attn. Mr. Steve Boyle, Airport Director

Published in The Wickenburg Sun on December 3, 2014.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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

Janice K. Brewer
Governor

Henry R. Darwin
Director

December 5, 2014

Mr. Steve Boyle, Airport Director
Town of Wickenburg
Community Development Department
155 N. Tegner Street
Wickenburg, AZ 85390

RE: Maricopa County: Scoping Letter for the Draft Supplement to the Final Environmental Assessment for the Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport

Dear Mr. Boyle:

The ADEQ Air Quality Division has reviewed your letter dated December 1, 2014, requesting a scoping letter for the Draft Supplement to the Final Environmental Assessment for the Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport. Your project is not located in a maintenance or nonattainment area for any regulated pollutants. As described, it may have a de minimis impact on air quality. Disturbance of particulate matter is anticipated during construction. Considering prevailing winds, to comply with other applicable air pollution control requirements and minimize adverse impacts on public health and welfare, the following information is provided for 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:

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

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).

ARTICLE 9. NEW SOURCE PERFORMANCE STANDARDS

R18-2-901. Standards of Performance for New Stationary Sources

Except as provided in R18-2-902 through R18-2-905, the following subparts of 40 CFR 60, New Source Performance Standards (NSPS), and all accompanying appendices, adopted as of July 1, 2006, and no future editions or amendments, are incorporated by reference as applicable requirements. These standards are on file with the Department and shall be applied by the Department. These standards can be obtained from the U.S. Government Printing Office, Superintendent of Documents, Mail Stop SSOP, Washington D.C. 20402-9328.

1. Subpart A - General Provisions.
2. Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971.
3. Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.
4. Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
5. Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
6. Subpart E - Standards of Performance for Incinerators.
7. Subpart Ea - Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or Before September 20, 1994.
8. Subpart Eb - Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994 or for Which

Response to Letter from Arizona Department of Environmental Quality, dated December 5, 2014:

Comment noted. All construction activity related to the Proposed Action would be required to comply with Arizona emission and dust control regulations as stipulated in the Arizona Administrative Code, and as discussed on page 4-6 of this Supplement to the Final Environmental Assessment for the proposed mid-field aircraft parking apron project at the Wickenburg Municipal Airport.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Phoenix District
21605 North 7th Avenue
Phoenix, Arizona 85027
www.blm.gov/az/

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In Reply Refer To:
1610 (P010)

Mr. Steve Boyle
Airport Director
Wickenburg Municipal Airport
Community Development Department
155 N Tegner Street
Wickenburg, AZ 85390

Dear Director Boyle:

Thank you for the information regarding the availability of the draft supplement to the Final Environmental Assessment for the Proposed Mid-Field Aircraft Parking Apron at Wickenburg Municipal Airport.

The airport was once surrounded by Bureau of Land Management (BLM) administered public land. However, the land was transferred to the Arizona State Land Department in the late 1980s. The BLM did not retain federal mineral interests in these lands in the vicinity of the airport. As such, we have no questions or concerns with the airport's proposal to construct a new aircraft parking apron.

If you have any questions, please contact me at 623-580-5530, or rhawes@blm.gov.

Sincerely,

D. Remington Hawes

Rem Hawes
Field Manager

Response to Letter from United States Department of Interior, Bureau of Land Management, received December 12, 2014:

Comment noted.

From: david_hurd@nps.gov [mailto:david_hurd@nps.gov] **On Behalf Of** IMRextrev, NPS
Sent: Friday, December 19, 2014 10:15 AM
To: Steve Boyle
Subject: Re: Wickenburg Airport Draft Supplement Notice

Dear Mr. Boyle,

The National Park Service has reviewed this project and has found no comments at this time. Additionally the National Park Service, Intermountain Regional office is pleased to announce the selection of Sue E. Masica as our new Regional Director.

Regards,

National Park Service
Intermountain Region External Review Team
Serving MT, UT, WY, CO, AZ, NM, OK, TX
imrextrev@nps.gov

On Mon, Dec 1, 2014 at 9:46 AM, Steve Boyle <sboyle@wickenburgaz.org> wrote:
Mr. Hurd

Attached is the notice for the Wickenburg Municipal Airport project.

Steve Boyle
Community Development and Neighborhood Services Director
Town of Wickenburg
(w) 928-668-0512
(cell) 928-231-1181

Response to Email from National Park Service, Intermountain Regional Office, dated December 19, 2014:

Comment noted.

USDA
United States Department of Agriculture

December 23, 2014

Town of Wickenburg
Community Development Dept.
Attn: Mr. Steve Boyle, Airport Director
155 N. Tegner, Suite A
Wickenburg, AZ 85390

RE: Proposed Supplement to the Final EA for the Proposed Mid-field Aircraft Parking Apron at Wickenburg Municipal Airport

Dear Sir or Madame:
This letter is in response to the Proposed Supplement to the Final EA for the Proposed Mid-field Aircraft Parking Apron at Wickenburg Municipal Airport evaluation requesting information regarding the presence of prime or unique farmlands. The Natural Resources Conservation Service (NRCS) acts as the national Farmland Protection Policy Act (FPPA) steward which reviews projects which may affect prime or unique farmland.

After reviewing your project proposal, the following is noted:

- The proposed project location does not include prime or unique farmland as designated by the Natural Resources Conservation Service Soil Survey, therefore, the project is exempt from the FPPA requirements.

-No further action is required at this time.

Should you have any questions, please contact Cheryl Lambert, State Environmental Coordinator, for any questions or future requests. Cheryl Lambert can be contacted at (602) 280-8787 or via email at Cheryl.Lambert@az.usda.gov.

Sincerely,

CHERYL LAMBERT
Digitally signed by CHERYL LAMBERT
DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=CHERYL LAMBERT, 0.9.2342.19200300.100.1.1=12001000622011
Date: 2014.12.23 15:21:08 -07'00'

STEPHEN SMARIK
State Resource Conservationist

Natural Resources Conservation Service
230 N. First Avenue, Phoenix, Arizona 85003-1733
Tel. (602) 280-8801 • Fax (855) 844-9178

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Response to Letter from United States Department of Agriculture, dated December 23, 2014:

Comment noted.