U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

U.S. DEPARTMENT OF THE AIR FORCE

RECORD OF DECISION

PROPOSED AIRFIELD SAFETY ENHANCEMENT PROJECT
TUCSON INTERNATIONAL AIRPORT
Tucson, Pima County, Arizona

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GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT? This Record of Decision (ROD) provides the Final environmental determination and approval by the Federal Aviation Administration (FAA), as lead federal agency, and the United States Air Force (USAF), acting as the Cooperating Agency, to implement federal actions needed for the proposed Airfield Safety Enhancement Project (ASEP) and associated land transactions at the Tucson International Airport (TUS), Tucson, Pima County, Arizona.

This ROD was prepared pursuant to Title 40, Code of Federal Regulations (C.F.R.) § 1505.2, and is consistent with Executive Order (EO) 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects*. This ROD discusses all alternatives considered by the FAA and USAF in reaching their decision, summarizes the analysis used to evaluate the alternatives, and briefly summarizes the potential environmental consequences of the Proposed Action and the No Action Alternative described in the Final Environmental Impact Statement (EIS) published on August 31, 2018. This ROD identifies the FAA and USAF's preferred alternative, which is also the environmentally preferred alternative and selects the Proposed Action for implementation at TUS. In identifying the environmentally preferred alternative, the FAA and USAF have adopted all practicable means to avoid or minimize the adverse environmental impacts of the Proposed Action. This ROD identifies applicable and required mitigation.

BACKGROUND. In May 2018, the FAA published a Draft Environmental Impact Statement (EIS). The Draft EIS was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA). FAA published its Notice of Availability in local newspapers on Friday, May 18, 2018. The U.S. Environmental Protection Agency (EPA) published the Notice of Availability of the Draft EIS in the *Federal Register* on May 21, 2018. The FAA received comments on the Draft EIS between May 18, 2018 and July 9, 2018. The FAA hosted a Public Workshop and Public Hearing to discuss the Draft EIS on June 21, 2018. The FAA prepared the Final EIS using the information in the Draft EIS and comments received during the public comment period. The EPA published the Notice of Availability for the Final EIS on August 31, 2018. The FAA published its Notice of Availability for the Final EIS in the local newspapers on the same date. Copies of this ROD are available for inspection at various libraries in the Tucson Metropolitan area, the FAA Western-Pacific Regional Office in El Segundo, California, the FAA's Airports District Office in Phoenix, Arizona, and at the administrative offices of Tucson Airport Authority. Appendix C of this ROD provides the addresses for these locations. The Final EIS document is available online at http://www.airportprojects.net/tus-eis.

WHAT SHOULD YOU DO? Read the ROD to understand the actions that FAA, and USAF will take relative to the proposed project.

WHAT HAPPENS AFTER THIS? The Tucson Airport Authority, operator of TUS, may begin to carry out the ASEP and associated land transactions.

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I. INTRODUCTION

This Record of Decision (ROD) reflects the final environmental determination and approval of the Federal Aviation Administration (FAA) and the United States Air Force (USAF) regarding the proposed Airfield Safety Enhancement Project (ASEP) including real property transactions ("the Project") at the TUS (or "Airport"). These decisions are based upon a thorough and careful environmental decision making process, including review of the analysis of impacts described in the Final EIS dated August 31, 2018 (83 FR 44625).

This ROD is based on the Final EIS, published on August 31, 2018, prepared by the FAA as the lead federal agency and the USAF as a cooperating agency pursuant to the requirements of NEPA, as amended (42 United States Code [U.S.C.] § 4321, *et seq.*]; the implementing regulations of the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (Title 40, Code of Federal Regulations [C.F.R.] parts 1500-1508); FAA Orders 1050.1F, *Environmental Impacts: Policies and Procedures* and 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*; and USAF Environmental Documentation described in 32 C.F.R. Part 989, *Environmental Impact Analysis Process*. The FAA conducted coordinated and concurrent environmental reviews consistent with the One Federal Decision framework laid out EO 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure*, which emphasizes the importance of streamlining federal environmental review processes. This ROD reflects the decisions and approvals of the FAA and the USAF pursuant to 40 C.F.R. § 1506.4.

The FAA and USAF have selected the Proposed Action, which is also the environmentally preferred alternative, for implementation at TUS. The federal actions identified in Section III of this ROD are necessary to implement the Proposed Action. The Proposed Action is described in detail in Section 1.4 of the Final EIS, and depicted in Exhibit 1-11 of the Final EIS and in Figure 1 of this ROD:

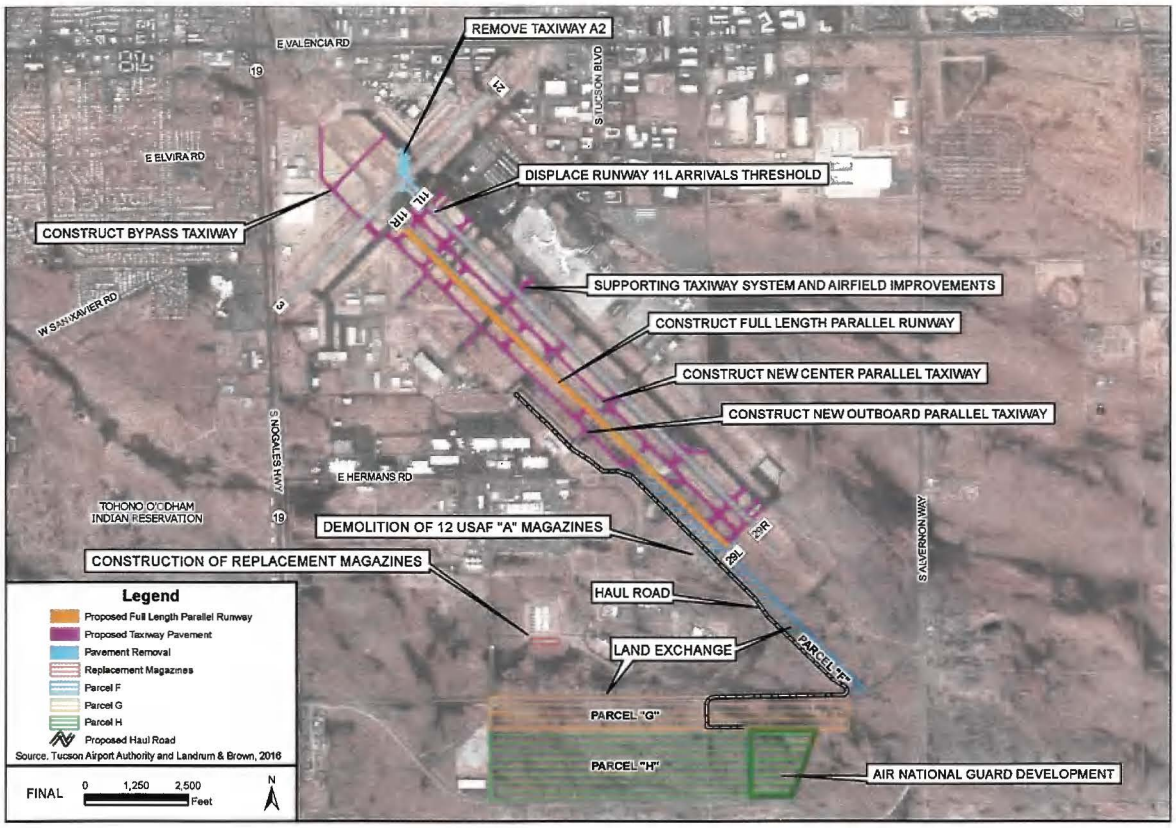

Figure 1 – Proposed Action

The Proposed Action includes the following Project components:

- Construct Full Length Parallel Runway
- Displace Runway 11L Arrivals Threshold
- Demolish Existing Runway 11R/29L
- Construct New Centerline Parallel Taxiway
- Construct New Outboard Parallel Taxiway
- Construct Supporting Connector Taxiways
- Construct Bypass Taxiway
- Close Taxiway A2 segments between Taxiway A and Runway 3/21 and the Taxiway A2 segments between Runway 3/21 and Taxiway D
- Construct/Maintain Arizona Air National Guard (AANG) Extended Arm/Disarm Pad
- Associated Drainage Improvements

- Remove and replace Existing Arizona AANG Arresting System on Runway 11L and install two new replacement systems on the new parallel runway
- Land Transactions/Conveyance:
- Transfer Parcel "F" (approximately 58 acres) from Air Force Plant (AFP) 44 to Tucson Airport Authority (TAA), (joint oversight by both FAA and USAF)
- Parcel "G" (160 acres) from TAA to USAF, (joint oversight by both FAA and USAF)
- Conveyance of Parcel "H" (up to 290 acres) from TAA to federal, state, or local government agencies or individual or entity or the USAF to be made available to USAF/AANG
- Demolition of 12 USAF Earth Covered Magazines (ECMs) identified on and adjacent to AFP 44 Parcel F
- Construction of replacement magazines elsewhere on AFP 44
- Construction of MSA for the AANG on a Portion of Parcel "H" (approximately 55 acres)

Section IV of this ROD describes the Purpose and Need. Section V describes the multi-step screening process to identify a range of reasonable alternatives that were capable of achieving the Purpose and Need. As described in Section VI, the FAA and USAF have selected the Proposed Action as the preferred alternative for implementation. Section X summarizes the potential environmental impacts of the alternatives. Section XI includes a summary of mitigation. Section XII includes the Agency Findings and Determinations and Section XIII includes the Decision and Orders.

II. BACKGROUND

The City of Tucson is the owner and TAA is the operator of TUS. TAA developed a set of improvements to TUS, which includes the ASEP as depicted on the Airport Layout Plan (ALP) for TUS. TUS is located on 8,343 acres in Tucson, Arizona in Pima County south of the City of Tucson central business district. The Airport is near both Interstate 10 and Interstate 19 as shown on Exhibit 1-1 of the Final EIS. The USAF owned land, known as AFP 44, is located along the southwest border of the Airport.

In October 2007, the FAA changed the accepted definition of the term "runway incursion" to adopt the International Civil Aviation Organization definition of runway incursions. The 2007 change in definition resulted in a dramatic increase of runway incursions at TUS, as shown in Exhibit 1-6 and Table 1-1 of the Final EIS. TUS reported a total of 22 runway incursions during the years 2001 to 2007—approximately 3 incursions per year. After the runway incursion definition changed, TUS reported a total of 124 runway incursions during the years 2008 to 2017—over 12 per year.

As a result of the increase in the number of runway incursions, the TAA conducted various planning studies. TAA initially completed an Airfield Safety Enhancement Study in 2011 to analyze, categorize, and recommend mitigations to enhance safety. Several of these recommendations were implemented. In 2014, TAA completed the most recent Airport Master Plan Update, for use by TAA to guide orderly development of TUS. The Airport Master Plan Update further analyzed enhancements recommended in the Airfield Safety Enhancement Study. The outcome of the Airport Master Plan was the the recommended relocation of Runway 11R/29L, and construction of a center parallel taxiway, as well as additional safety elements.

The TAA depicted the ASEP on the ALP for TUS. On June 24, 2014, the FAA accepted TAA's Airport Master Plan Update and approved the ALP depicting the proposed ASEP conditional on TAA obtaining FAA environmental approval for the proposed projects depicted on the ALP. In 2015, TAA prepared an update to the Airfield Safety Enhancement Study, which refined the improvements while maintaining the goal of reducing airfield incursions and improving overall safety with the relocation of Runway 11R/29L and construction of a center parallel taxiway.

As a result of these TAA's planning studies, various airfield safety issues were identified at the Airport that may affect its ability to efficiently maintain critical transportation function, now and in the near future. The various planning studies are not part of the Federal EIS process, but form the foundation of TAA's proposal to enhance airfield safety and eliminate the two "hotspots" identified on the airport. The ASEP represents part of the Proposed Action evaluated in the Final EIS. In addition to the ASEP improvements, the Proposed Action includes both connected and similar land transfer actions from TAA ultimately to the USAF for land at AFP 44, and another parcel of airport land on behalf of the National Guard Bureau (NGB) for construction of a MSA to include ECMs and an access road for the Arizona Air National Guard (AANG) 162nd Wing at the Tucson Air National Guard Base. These connected and similar actions are included on page 1-40 in Section 1.4.1 of the Final EIS pursuant to 40 CFR § 1502.4(c)(2) and § 1508.25(a)(1). The details of the Proposed Action are described in Section 1.4 of the Final EIS, and depicted in Exhibit 1-11 of the Final EIS, and Figure 1 of this ROD.

III. PROPOSED FEDERAL ACTIONS AND APPROVALS

Federal Actions by the FAA

1. Unconditional approval[1] of the ALP to depict the proposed improvements pursuant to 49 U.S.C. §§ 40103(b) and 47107(a)(16); 14 C.F.R. Part 77, *Objects Affecting Navigable Airspace*; and 14 C.F.R. Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*.

2. Determination under 49 U.S.C. § 44502(b) that the airport development is reasonably necessary for use in air commerce or in the interests of national defense.

3. Determination under 49 U.S.C. § 47106(a)(1) that the Selected Alternative is Reasonably Consistent with Existing Plans of Public Agencies Responsible for Development in the Area.

4. 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*, [14 C.F.R. Part 139 (49 U.S.C. § 44706)].

5. Approval of construction, installation, relocation of FAA-owned navigational and visual aids including but not limited to the Precision Approach Path Indicator (PAPI); Runway End Identifier Lights, taxiway edge lighting, signage and all associated utility lines. The FAA is responsible for the navigational air equipment necessary to ensure the safety of air navigation for aircraft operations at the Airport. The Proposed Action includes relocation of the Medium-intensity Approach Light System with Runway alignment indicator lights (MALSR), glide slope equipment, PAPI, Runway Visual Range system, and runway end identifier lights on 11L/29R. The relocated 11R/29L would remain a visual approach runway.

6. The Proposed Action will displace the threshold for 11L/29R. This will require the relocation of the MALSR/ILS equipment. Due to the relocation, FAA will test and reissue the instrument flight procedures for the following: ZONNA One (Arrivals and Departures), RNAV (RNP) Y RWY 11L, RNAV (GPS) Z RWY 11L, the VOR or TACAN RWY 11L, the ILS or TACAN RWY11L, RNAV (RNP) Y RWY 29R, RNAV (GPS) Z RWY 29R, LOC BC RWY 29R, and the VOR/DME or TACAN RWY29R.

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[1] Paragraph 202(c)(2) of FAA Order 5050.4B defines unconditional ALP approval where the proposed ALP depicts features that are safe and efficient for airport operations and use and that the features are ripe for Federal decision and that the Office of Airports (ARP) has completed the environmental review process this Order requires for the near-term and immediate-term development that is ripe for decision, and the approving FAA official has authorized the airport sponsor or project proponent to begin building the facilities or equipment depicted on the unconditionally approved ALP.

7. The relocated 11R/29L will require updated approach and departure procedures. Approaches: The relocated 11LR/29L will not have any ILS equipment and would remain a visual approach runway. FAA would test, update, and reissue the arrival and departure procedures charts for the following: RNAV (GPS) RWY 11R and RNAV (GPS) RWY 29L. Departures: The following charts would have to tested, updated, and reissued: Tucson Eight Departure, Burro Four Departure, and WLDKT Three Departure.

8. The FAA will need to identify, test, and issue any potential revised and temporary air traffic control procedures to be used during construction. During construction, various runway closures could introduce additional aircraft overflights to areas around the Airport. Runway 11R/29L (the existing General Aviation Runway) is anticipated to be closed up to 12 months. After the relocation and approval of use of 11R/29L, Runway 11L/29R will be closed for approximately five months to complete the Proposed Action construction. The FAA would need to develop air traffic control and airspace management procedures designed to affect the safe and efficient movement of air traffic to and from the Proposed Action during construction and determine if the proposed temporary procedures are consistent with the Final EIS.

9. Approval of the TAA's request for release of federal obligations on land owned by the Airport Authority for ultimate transfer to the USAF for AFP 44[2] and AANG MSA. Approval of changes to the airport certification manual pursuant to 14 C.F.R. Part 139.

10. Determinations under 49 U.S.C §§ 47106 and 47107 relating to project grant application approval conditioned on satisfaction of project requirements, and project grant application approval conditioned on assurances about airport operations the proposed project for federal funding assistance under the Airport Improvement Plan (AIP) for the proposed project as shown on the ALP.

11. Determination of eligibility for federal assistance for the near-term development projects under the federal grant-in-aid program authorized by the Airport and Airway Improvement Act of 1982, as amended (49 U.S.C. § 47101 et seq.).

12. Appropriate amendments to air carrier operations specifications pursuant to 49 U.S.C. § 44705.

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[2] FAA is clarifying its response to comment P-39 in the Final EIS. FAA clarifies its response to state that TAA may sell Parcel H to the USAF directly or to any federal, state, or local government agencies, such as the City of Tucson or Pima County, or any other individual or entity that is/are interested in the purchasing the released land at fair market value for eventual use by the USAF/AANG. FAA and USAF understand local government is supportive of future expansion of AFP 44. FAA and USAF also understand local government supports construction of the NGB's proposed Munitions Storage Area on the eastern portion of Parcel H and may purchase that portion of Parcel H to support the NGB at fair market value. FAA also clarifies that the various property transactions would include construction of replacement fencing to ensure both airport security and AFP 44 security.

Federal Actions by the USAF

13. Approval of disposal of Parcel "F" and associated recorded deed restrictions for AFP 44.
14. Approval of acquisition of Parcel "G" from TAA for use by the USAF at AFP 44.
15. Approval of the ultimate transfer of Parcel "H" from TAA to the USAF, a portion of which would be designated for use by the NGB.
16. Approval of construction of replacement ECMs on AFP 44.
17. Approval of deactivation and subsequent demolition of 12 ECMs (also known as "A" Magazines) located on and adjacent to Parcel "F."
18. Approval of construction of a replacement AFP 44 perimeter fence along the western boundary of Parcel "F."
19. Approval of appropriate agreements between the USAF and NGB for use of land in Parcel "H" for construction of an MSA.
20. Approval of funds for design/construction of an MSA to support the AANG at Tucson Air National Guard Base on Parcel "H."

IV. PURPOSE AND NEED

The purpose and need for the Proposed Action is documented in detailed in Section 1.3 of the Final EIS. The next paragraphs of this Section describe the purpose and need of the FAA, USAF, NGB, and TAA.

FAA Purpose and Need

The purpose of the Proposed Action is to fulfill FAA's statutory mission to ensure the safe and efficient use of navigable airspace[3] in the United States as set forth under the under the Federal Aviation Act of 1958, as amended,[49 U.S.C. § 47101 (a)(1)]. The FAA must ensure that the Proposed Action does not derogate the safety of aircraft and airport operations at TUS. Moreover, it is the policy of the FAA under 49 U.S.C. § 47101(a)(6) that airport development projects provide for the protection and enhancement of natural resources and the quality of the environment of the United States. The FAA's need for the Proposed Action is to ensure that TUS operates in the safest manner possible pursuant to 49 U.S.C. § 47101(a)(1), that states that the safe operation of the airport and airway system is the highest aviation priority, and to reduce the potential risk of runway incursions to the extent practicable. The following sections present the FAA's specific needs.

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[3] 49 USCS § 40102 (32) defines *navigable airspace* as airspace above the minimum altitudes of flight prescribed by regulations under this subpart and subpart III of this part, including airspace needed to ensure safety in the takeoff and landing of aircraft. For the purposes of this ROD, navigable airspace includes the airspace at and around Tucson International Airport.

USAF Purpose and Need

The USAF's purpose and need is to maintain equivalent AFP 44 operational capabilities. The USAF owns land, known as AFP 44, adjacent to the Airport. Under the Proposed Action, 12 ECMs used to store explosive materials, located on AFP 44, would have to be demolished and the explosive storage capability, in the form of replacement ECMs, would need to be reconstructed elsewhere on AFP 44. Removal of these ECMs is needed to prevent USAF munitions storage safety arcs from extending onto the TUS airfield after relocation of Runway 11R/29L and to remove the ECMs from the relocated runway's safety area. In order to ensure the USAF maintains equivalent AFP 44 operational capabilities, the replacement ECMs will be built and determined by the USAF to be operational before the explosive materials in the existing ECMs are relocated into the new ECMs.

NGB Purpose and Need

The NGB's purpose and need is to maintain NGB safety standards and operational capabilities at the Tucson Air National Guard Base. The existing MSA at the Tucson Air National Guard Base does not meet the USAF separation distances required for explosive operations and exposes non-munitions personnel to explosive hazards. Relocating the MSA would accommodate the required Quantity Distance clear zone arcs that are required in accordance with USAF Manual 91 201, *Explosives Safety Standards*.

Tucson Airport Authority (TAA) Purpose and Need

The TAA's purpose and need is to enhance the safety of the airfield at TUS. TAA has conducted various planning studies with the goal of reducing airfield incursions and improving overall airfield safety. The Project, which is the subject of this EIS, was developed by TAA to meet this goal and to ensure that TUS operates in the safest manner possible. TAA has also identified the need to ensure land use compatibility among users of TUS and to protect for potential future development on Airport property.

Table 1 of this ROD provides a summary of the FAA and USAF's purpose and need for the Proposed Action.

TABLE 1 – FAA AND USAF PURPOSE AND NEED SUMMARY

Description of Proposed Action		Purpose and Need	Responsible Federal Agency
Construct Full Parallel Runway	This element includes the demolition, relocation, and reconstruction of Runway 11R/29L as 10,996 feet long by 150 feet wide runway.	The replacement runway would provide continued use of the airport when Runway 11L/29R is closed for any reason. Construction of a full length replacement runway will reduce pilot confusion between the two parallel runways and Taxiway A. This will eliminate Hot Spot 1 in the southern part of the airfield. The FAA defines a "hot spot" as a location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary.	FAA
Displace Runway 11L Arrival Threshold	This component relocates the Runway 11L threshold 921 feet to the southeast to align with the threshold for new Runway 11R. Arrival procedures ZONNA One Arrival, RNAV (RNP) Y RWY 11L, RNAV (GPS) Z 11L, and VOR or TACAN RWY 11L must be tested and reissued.	This component will eliminate Hot Spot 2, and will allow aircraft to taxi along Taxiway D independent of runway arrival operations. Air Traffic Arrival/Departure procedures need to be revised/reissued to ensure safe aircraft operation associated with new runway ends.	FAA
Demolish Existing Runway 11R/29L	This element proposes demolition of the Existing Runway 11R/29L and associated taxiways.	To improve the efficiency of landside passenger handling facilities at TUS to accommodate forecast demand and maintain an acceptable level of service to passengers.	FAA
Construct New Centerline Parallel Taxiway	This element proposes construction of a full-length parallel taxiway between Runway 11L/29R and Runway11R/29L.	To maintain the safety of aircraft ground operations and improve the efficiency of airfield operations by reducing aircraft operating time.	FAA
Construct New Outboard Parallel Taxiway	This element includes the construction of a parallel taxiway 400 feet southwest of the new relocated Runway 11R/29L. This parallel taxiway would provide additional access to Runway 11R/29L.	To improve access to the airport and efficiency of the on-airport roadway system.	FAA

Description of Proposed Action		Purpose and Need	Responsible Federal Agency
Construct Supporting Connector Taxiways	This element includes construction of connector taxiways between Runway 11R/29L and both outboard and centerline parallel taxiway. It also includes construction of connector taxiways between Runway 11L/29R and the centerline parallel taxiway and connector taxiways between Runway 11L/29R and Taxiway A accommodate the new displaced threshold.	To improve access to the airport and efficiency of the on-airport roadway system.	FAA
Construct Bypass Taxiway	This element includes construction of a new bypass taxiway northwest of the Runway Protection Zones for Runways 11L and 11R. This element would include removal of the existing concrete apron from the surrounding area and demolition of four existing buildings/hangars within the area.	The displaced arrivals thresholds would allow unrestricted taxiing of aircraft (regardless of size) accessing Runway 11R.	FAA
Close Taxiway A2	This element includes the closure of Taxiway A2 segment between Taxiway A and Runway 3/21 and the Taxiway A2 segments between Runway 3/21 and Taxiway D.	To maintain the safety of aircraft ground operations and improve the efficiency of airfield operations.	FAA
Construct/Maintain AANG Extended Arm/Disarm Pad	This element would construct/maintain the AANG Arm/Disarm pads for Runways 11L/29R and 11R/29L and paint/mark as non-runway/taxiway pavement.	To maintain the safety of aircraft ground operations.	USAF/NGB
Associated Drainage Improvements	This element provides for additional drainage detention areas to provide for the additional impervious pavement areas.	To provide additional drainage detention to account for increased impervious surface that would cause stormwater to flow off airport.	FAA
AANG Aircraft Arresting System/Runway Improvements	This element provides for the removal and replacement of two AANG arresting systems on Runway 11L and construction of a new overrun barrier on Runway 11L. In addition, three new systems would be installed on the new parallel runway to include one overrun barrier and one new system would be installed on Runway 3/21. This element also includes the extension of the 11L and new parallel runway.	To meet arresting system requirements and to maintain the capability of the AANG at TUS.	USAF/NGB

Description of Proposed Action		Purpose and Need	Responsible Federal Agency
Land Transactions/Conveyance of Parcel "F" (approximately 58 acres) from AFP 44 to TAA, Parcel "G" (160 acres) from TAA to USAF, and Conveyance of Parcel "H" (up to 290 acres) from TAA to be made available to USAF	This element of the Proposed Action includes the acquisition of USAF owned land named Parcel "F" that is part of AFP 44 for the relocated runway object free area, taxiway object free area, runway safety area, and runway protection zone for the relocated runway. This Parcel "F" area is currently used by USAF to store explosives in ECMs. This element also includes the release of Airport land from federal obligations between the former East Hughes Access Road and the new Aerospace Parkway, south of AFP 44. A portion of this land has been proposed for construction of an MSA, to include ECMs, and access road, for the AANG at the Tucson Air National Guard Base located adjacent to TUS. This element also includes conveyance of Parcel "H" (up to 290 acres) from TAA to be made available to any federal, state, local government agencies, individuals or entities and/or the USAF for eventual use by the USAF/AANG.	To maintain the necessary FAA required safety areas as it relates to the relocated runway and to provide the same munitions storage capacity of AFP 44 to support the mission of AFP 44.	FAA responsible for releasing TAA from Federal obligations for Parcels G and H. USAF responsible for transferring Parcel F to TAA
Demolition of 12 USAF ECMS on AFP 44	This element includes the demolition of the twelve ECMs on Parcel "F" and adjacent to Parcel "F."	To maintain the necessary FAA required safety areas for the relocated runway.	USAF
Construction of replacement ECM elsewhere on AFP 44	These new ECMs would replace the 12 "A" Magazines to be demolished on Parcel "F" and adjacent to Parcel "F."	To maintain the existing munitions storage capacity of AFP 44, replacement storage facilities would be constructed elsewhere on AFP 44 that would provide the same volume of storage provided in the "A" Magazines.	USAF
Construction of AANG MSA & Access Road	This element includes transfer of land from Parcel "H" to the USAF on behalf of the NGB for construction of a MSA and access road to support the AANG at Tucson Air National Guard Base.	To maintain NGB safety standards and operational capabilities at the Tucson Air National Guard Base.	USAF/NGB

V. ALTERNATIVES CONSIDERED

Evaluation and Screening of Alternatives

The FAA completed a thorough and objective review of a range of reasonable alternatives in accordance with CEQ regulations (40 C.F.R. § 1502.14). As described in Section 2.1 of the Final EIS, based on the Purpose and Need of the FAA, USAF, NGB, and TAA, the FAA divided the evaluation of alternatives into two groups:

- Those alternatives that were designed to meet FAA, USAF, and TAA's Purpose and Need ("ASEP Alternative"); and
- Those alternatives designed to meet NGB and TAA's Purpose and Need ("MSA Alternative").

The FAA established a multi-step screening process to identify a range of reasonable ASEP alternatives that were capable of achieving the Purpose and Need for the Proposed Action. **Table 2** of this ROD depicts the multi-step screening process for the ASEP alternative. The first step in the screening process eliminated alternatives that did not meet the Purpose and Need of the FAA, USAF, and TAA. The second step in the screening process eliminated alternatives that were not practical or feasible to implement from a technical and economic standpoint. The third step in the process eliminated alternatives that would not result in safe and efficient use of navigable airspace and minimize airfield operational impacts during construction. The alternatives that were not eliminated through this screening process were retained for a more detailed environmental evaluation in the EIS process.

The EIS considered both on-site (i.e., on-site airfield development) and off-site (e.g., other airports) alternatives. Other modes of transportation such as intercity bus, passenger rail, and automobile transportation usage were not considered in the range of reasonable alternatives because safety of the airfield would not be enhanced.

Based on the findings from the first step, two on-site alternatives and three off-site alternatives were identified as satisfying the Purpose and Need, in addition to the No Action Alternative. The second step of the screening process analyzed the alternatives a step further to evaluate if the alternative was practical or feasible to implement from a technical and economic standpoint. The FAA reviewed the current layout of TUS and its surroundings to identify constraints to potential implementation of alternatives. Based on the analysis from the first and second step of the screening process, two on-site alternatives, and the No Action Alternative were carried forward for the third step of the alternatives screening process. The third step of the alternatives screening process analyzed the ASEP alternatives' ability to result in a safe and efficient use of navigable airspace and minimize airfield operational impacts during construction.

TABLE 2 – MULTI-STEP SCREENING PROCESS FOR THE ASEP ALTERNATIVE

Alternative	Description	Alternatives Ability to Meet the Established Purpose and Need			Retain for detailed EIS impact evaluation?
		Step One - Achieve the objectives of the Purpose and Need statements?	***Step Two – Practical or Feasible to Implement from an economic and technical standpoint?***	***Step Three - Results in Safe and Efficient use of Navigable airspace and Minimizes airfield operational impacts?***	
No Action	-Airport remains as it is today	No	Yes	Yes/No	**Yes**
706-Foot Separation Plan A*	-Minimal action to taxiway connectors to increase pilot awareness and limit runway crossings	No			
706-Foot Separation Plan B*	-Dual full length parallel runway system -Retain both Runway 11's end thresholds	No			
706-Foot Separation Plan C*	-Dual full length parallel runway system -Displace both Runway 11's thresholds	No			
800-Foot Separation Plan A	-Dual full length parallel runway system -Displace both Runway 11's thresholds, end-around Taxiway D for B-II aircraft	Yes	Yes	Yes	**Yes**
800-Foot Separation Plan B*	-Dual full length parallel runway system -Shift runways southeast, unobstructed end-around Taxiway D	Yes	Yes	No	
East Runway*	-Dual full length parallel runway system -New Runway 12/30, east of terminal core -Dual independent approaches -Additional taxiways near west pad	No			
Ryan Airfield*	-Insufficient runway length & airport facilities	Yes	No		
Marana Regional*	-Insufficient runway length & airport facilities	Yes	No		
Davis -Monthan Air Force Base*	-Cannot accept commercial/public traffic	Yes	No		

Note: The No Action Alternative was retained for detailed analysis for comparative purposes as required by 40 C.F.R. § 1502.14(d). (*)These alternatives were considered, but eliminated from further study.

The FAA then established a multi-step screening process to identify a range of reasonable MSA alternatives. The screening process determined if the initial range of alternatives were able to meet the NGB's Purpose and Need and if the alternative was consistent with planned airport development. If the MSA alternative advanced through the screening process, it was retained for a more detailed environmental evaluation in the EIS. **Table 3** of this ROD, summarizes the screening process for the various MSA alternatives.

TABLE 3 – MULTI-STEP SCREENING PROCESS FOR THE MSA ALTERNATIVE

Alternative	Description	Step One – Does the alternative maintain NGB Safety Standards and operational capabilities?	Step Two – Is the Alternative consistent with planned airport development?	Retain for detailed EIS impact evaluation?
East Los Reales Site*	Located east of Air Freight Ramp Closest to AANG Security Concerns Conflict with Airport Development	Yes	No	
South Alvernon Way Site*	Security and safety concerns due to use of public road and proximity to non-airport property	Yes	No	
Parcel "H" site	Located south of AFP 44 Isolated location Could provide secure roadway that would not have to leave airport property	Yes	Yes	Yes

(*) These alternatives were considered, but eliminated from further study.

Based on the multi-step alternatives screening process, one ASEP alternative and one MSA alternative were recommended to be carried forward for further detailed environmental evaluation in the EIS. The following alternatives were retained for detailed impact evaluation in the EIS:

- No Action Alternative: The No Action Alternative was included in the evaluation of potential environmental consequences in this EIS, as required by 40 C.F.R. § 1502.14(d). Under the No Action Alternative, the airfield layout would remain as it is today. Pilots of aircraft would continue to use the airport as it is operated today. Runway 11R/29L would remain open for use by General Aviation Aircraft. Runway 11L/29R would be used by commercial service aircraft and AANG aircraft consistent with existing agreements between the NGB and TAA. Although the No Action Alternative would not fulfil the Purpose and Need, it provides a basis of comparison for the assessment of future conditions and impacts.

- 800-Foot Separation Plan A (Proposed Action): The 800-foot Separation Plan A is included as part of the Proposed Action. The 800-foot Separation Plan A includes the replacement of Runway 11R/29L with a full-length parallel runway. The distance between the parallel runways would be expanded to 800 feet. A center parallel taxiway would be constructed to allow aircraft to queue prior to crossing the other parallel runway. An additional parallel taxiway west of the relocated Runway 11R/29L would limit direct access from aircraft approaching the runway from the west. Various other taxiways improvements are proposed to promote pilot awareness on the airfield, most importantly the removal of the taxiways leading to the north ends of Runway 11L and 11R. The addition of several taxiway segments would replace removed taxiways and would comply with FAA design standards. Both Hot Spot 1 and Hot Spot 2 would be eliminated. Parallel Runways 11R/29L and 11L/29R would both measure 10,996 feet by 150 feet and have parallel thresholds at both ends to enhance visual acquisition of the runway end by pilots in the air.
- Parcel "H" Site (Proposed Action): Parcel "H" is included as part of the Proposed Action. The Parcel "H" site for the proposed MSA is located south of AFP 44 and southeast of intersection between former Hughes Access Road and South Country Club Road. After release of federal obligations by FAA, TAA would make available for fair market value approximately, 55 acres on the eastern edge of Parcel "H" to the USAF or another purchaser on behalf of the NGB for the MSA. This area would provide the AANG the appropriate landside and airside access for a new MSA. In addition, this MSA site would maintain NGB safety standards and operational capabilities and not conflict with future developments on the airfield. This proposed MSA would also not conflict with AFP 44 operations.

VI. AGENCY PREFERRED ALTERNATIVE AND ENVIRONMENTALLY PREFERRED ALTERNATIVE

The CEQ regulations (40 C.F.R. § 1502.14(e)) require that a lead agency identify its preferred alternative in the Final EIS and identify the environmentally preferred alternative (40 C.F.R. § 1505.2(b)) in the ROD. The FAA and USAF's preferred alternative is the alternative "the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors." The environmentally preferred alternative is the alternative that best promotes the national environmental policies incorporated into Section 101 of NEPA. In general, this would be the alternative that results in the least impact to the environment while still meeting the purpose and need, and that best protects natural and cultural resources.

The Approving Officials for this ROD have selected the preferred alternative based on a review of "each alternative's ability to fulfill the agency's mission while considering their economic and environmental impacts, and technical factors." The FAA and USAF

identified the Proposed Action as the preferred alternative in both the Draft EIS and the Final EIS, and now select the Proposed Action for implementation.

The Proposed Action includes the replacement of Runway 11R/29L with a full-length parallel runway. The distance between the parallel runways would be expanded to 800 feet. A center parallel taxiway would be constructed to allow aircraft to queue prior to crossing the other parallel runway. An additional parallel taxiway west of the relocated Runway 11R/29L would limit direct access from aircraft approaching the runway from the west. The Proposed Action also includes various other taxiways improvements to promote pilot awareness on the airfield, most importantly the removal of the taxiways leading to the north ends of Runway 11L and 11R. The addition of several taxiway segments would replace removed taxiways and would comply with FAA design standards. The Proposed Action would eliminate both Hot Spot 1 and Hot Spot 2.

The Proposed Action also includes both connected and similar land transfer actions from TAA ultimately to the USAF for land at AFP 44, and a parcel of airport land on behalf of the NGB for construction of a MSA to include ECMs and an access road for the AANG 162nd Wing at the Tucson Air National Guard Base. The Parcel "H" Site for the proposed MSA is located south of AFP 44 and southeast of intersection between former Hughes Access Road and South Country Club Road. After release of federal obligations by FAA, TAA would make available for fair market value approximately 55 acres on the eastern edge of Parcel "H" to the USAF or other purchaser such as the City of Tucson or Pima County on behalf of the NGB for the MSA. This area would provide the AANG the appropriate landside and airside access for a new MSA. In addition, this approximate 55-acre site would maintain NGB safety standards and operational capabilities and not conflict with future developments on the airfield or AFP 44 operations.

In determining the environmentally preferred alternative, agencies must often do the difficult task of balancing one environmental value against another. Although the Proposed Action would result in direct disturbance to Pima Pineapple Cactus (PPC) individuals, habitat loss, and disturbance of suitable habitat, the FAA has adopted all practicable means to avoid or minimize the impacts. In addition, implementation of mitigation measures by TAA for impacts to PPC for the ASEP, including conservation banking and transplanting and monitoring of PPC, are a requirement of this ROD. This requirement will be specifically included as a special condition in appropriate Grant-in-Aid agreements with TAA for eligible projects under the FAA's Airport Improvement Program.

Implementation of the Proposed Action would cause a 1.5 decibel (dB) increase within the 65 day-night average sound level (DNL) contour by civilian and military aircraft using the airport. This DNL 1.5 dB increase in noise would result in a significant impact to noise sensitive residential housing units within the 65 DNL noise contour as well as noise

impacts to minority and low-income populations also within the 65 DNL noise contour[4]. However, mitigation, including sound insulation for eligible single family and multi-family housing units, as well as acquisition of manufactured/mobile home parks would be implemented by TAA. TAA may decide to use its Part 150 noise mitigation program or develop and manage a specific mitigation program for the ASEP as method for installation of sound insulation or acquisition of manufacturers/mobile home parks.

The implementation of the Proposed Action would result in impacts to Jurisdictional Waters of the United States as well as an increase in impervious surfaces. TAA will coordinate with the U.S. Army Corps of Engineers to obtain the required Section 404 permitting (i.e. Section 404 Individual Permit and/or Nationwide Permit (NWP) verification) and Section 401 Water Quality Certification from the Arizona Department of Environmental Quality (ADEQ). Furthermore, coordination with the ADEQ will be conducted by TAA in accordance with Section 402 of the Clean Water Act (CWA) to ensure a National Pollutant Discharge Elimination System (NPDES) permit is obtained. Proposed detention basins would effectively attenuate the stormwater discharge and volume as a result of the Proposed Action. Using these mitigation measures, the Proposed Action would not exceed water quality standards established by federal, state, local, and tribal regulatory agencies or contaminate public drinking water supply.

While the Proposed Action would cause impacts to the environment, the Final EIS has disclosed that the ASEP includes all practicable means to avoid or minimize the adverse environmental impacts. The FAA has identified the Proposed Action to be the environmentally preferred alternative because it meets the purpose and need, while protecting natural and cultural resources.

VII. PUBLIC AND AGENCY INVOLVEMENT

Scoping for the development of the EIS began with the publication of the Notice of Intent to prepare the EIS in the *Federal Register* on August 19, 2016 (81 FR 55518). A notice of the scoping meeting was published in the *Arizona Daily Star*, 30 days in advance of the scheduled meeting.

On September 22, 2016, FAA conducted a governmental agency scoping meeting for all federal, state, and local regulatory agencies which have jurisdiction by law or have special expertise with respect to any potential environmental impacts associated with the Proposed Action. The FAA held this meeting at Tucson Executive Terminal at the base of the Old Airport Traffic Control Tower building, 7081 South Plumer Avenue, Tucson, Arizona.

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[4] See Section X of this ROD for the discussion of Environmental Justice.

FAA also conducted a public scoping meeting on September 22, 2016 at the same location during the evening. The public scoping meeting was conducted in an open house format designed to inform the public about the Proposed Action and NEPA process, and allow the public to speak with FAA, USAF, NGB, and Airport Sponsor representatives on issues and concerns they would like to see addressed in the EIS. During the scoping meeting, FAA staff gave a presentation on the Project and the objectives of the Proposed Action. Following the presentation, the public was provided the opportunity to comment on the project. A total of 22 individuals not including FAA, USAF, NGB, and Airport Sponsor representatives signed in at the meeting.

A total of 18 public comments were received during the scoping period from August 19, 2016 to October 3, 2016. Thirteen people provided comments in support of the proposed project. Five comments were received concerning the possibility of additional military flights including the F-35 Lightning II fighter aircraft being based at DMA or Tucson Air National Guard Base. However, the need for the Proposed Action at TUS does not involve, in any way, the new F-35 fighter aircraft. Deployment of the F-35 to various installations around the United States and abroad is a decision made by the USAF. In August 2012, the USAF approved a Record of Decision to station the F-35A at Luke Air Force Base, west of Phoenix, Arizona. In addition, the USAF Air Force Reserve Command, is preparing a Draft EIS for the operational beddown of the F-35 at Naval Air Station Fort Worth Joint Reserve Base, Texas. Davis-Monthan Air Force Base, Arizona in Tucson is one of several reasonable alternatives being considered in that EIS[5]. At this time, there is no proposal before the USAF or NGB that has identified Tucson Air National Guard Base for placement of the F-35. Therefore, no analysis of potential F-35 deployment at TUS is included in the Final EIS.

Appendix A of the Final EIS includes a copy of the Notice of Intent published in the *Federal Register* as well as the sign in sheets. Chapter 5, Table 5-4 of the Final EIS, includes comments and responses from Scoping. Appendix K, in Volume 2 of the Final EIS includes Responses to Comments on the Draft EIS.

In April 2017, the FAA prepared and published a Purpose, Need, and Alternatives Working Paper to provide background information on TUS, a description of the Proposed Action, and the Purpose and Need to which the FAA, USAF, and NGB were responding in evaluating the Proposed Action and alternatives. The Notice of Availability for the Working Paper was issued in the *Federal Register* (82 FR 17718) , *The Arizona Daily Star*, and *La Estrella* newspapers on April 12, 2017 and in the local newspapers, and the website set up for the DEIS. No comments were received on the working paper during the comment period of April 12, 2017 to May 15, 2017.

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5 http://www.afrc-f35a-beddown.com/

The FAA hosted a public workshop on September 28, 2017, to discuss the progress of the Draft EIS. The workshop was held at Tucson Executive Terminal at the base of the Old Airport Traffic Control Tower building, 7081 South Plumber Avenue, Tucson, Arizona. A copy of the Public Workshop newspaper notices, as well as the materials presented at the meeting are provided in Appendix A of the Final EIS. No comments were received at the public workshop.

The EPA published a Notice of Availability (NOA) of the Draft EIS in the *Federal Register* on May 21, 2018 (83 FR 23461). The NOA described the Proposed Action, provided the public hearing date, time, and location, informed the public on how to obtain a copy of the Draft EIS, and initiated the public comment period. Advertisements announcing the availability of the Draft EIS were also published on May 18, 2018 in the *Arizona Daily Star* and *La Estrella* newspapers. Notice of the Draft EIS Availability for review was sent to all stakeholders who submitted comments during the EIS scoping process. The Draft EIS was also available for review online at the following website: https://www.airportprojects.net/tus-eis.

On June 21, 2018, the FAA hosted another Public Workshop and a Public Hearing to discuss the results of the Draft EIS analysis and receive public and governmental agency comments on the Draft EIS.. The Workshop and the Public Hearing was an opportunity for the public to provide input on the Draft EIS. Comment sheets and a chance to give oral comments were made available to the public at the meeting. Public comments on the Draft EIS were received from a total of 11 individuals, organizations, and governmental agencies during the official comment period (May 21, 2018 to July 9, 2018). The FAA and USAF prepared responses to the comments received on the Draft EIS, which are included in Appendix K of the Final EIS.

The FAA and USAF updated the Draft EIS based on all comments received and incorporated the information into the Final EIS. The FAA and USAF prepared responses to the comments received on the Draft EIS, which are included in Appendix K of the Final EIS. The EPA published the required NOA of the Final EIS on August 31, 2018 in the *Federal Register* (83 FR 44625). The FAA published its own Notice of Availability of the Final EIS in the local newspapers on the same date.

VIII. GOVERNMENT TO GOVERNMENT CONSULTATION

The FAA initiated Government-to-Government consultation with various affected Native American Tribes, as described in EO 13175, *Consultation and Coordination with Indian Tribal Governments*, and FAA's Order 1210.20, *American Indian and Alaska Native Tribal Consultation Policy and Procedures*, to ensure that Federally Recognized Tribes are given the opportunity to provide meaningful and timely input regarding proposed FAA actions that uniquely or significantly affect Tribes. The process was initiated by FAA in April 2017 by notifying Federally Recognized Native American Tribes, in writing, including the Gila River Indian Community, the Hopi Tribe of Arizona, the Pascua Yaqui

Tribe of Arizona, the Tohono O'odham Nation, and the Yavapai-Apache Nation of the Camp Verde Indian Reservation. Copies of the letters sent to the tribal officials are available in Appendix J of the Final EIS. The Hopi Tribe responded requesting continued consultation if the Proposed Action has the potential to adversely affect prehistoric sites. A copy of the letter received by the Hopi Tribe is included in Appendix J of the Final EIS. The FAA made follow-up telephone calls and sent emails to the federally recognized tribes that had not earlier responded in March 2018 prior to the issuance of the Draft EIS. No additional issues were identified at that time. Each of the federally recognized tribes were provided the Notice of Availability of the Draft EIS and the opportunity to provide comments. No comments were received on the Draft EIS and the tribes were provided the Notice of Availability of the Final EIS.

IX. AGENCY COORDINATION AND CONSULTATION

Throughout the EIS process, the FAA coordinated with federal, state, and local agencies including the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), Arizona State Historic Preservation Office (SHPO), City of Tucson, Pima County, and TAA.

The FAA coordinated with the USACE with regard to the preliminary Department of the Army jurisdictional determination (JD) for the Proposed Action. Based on the available information, the USACE preliminarily determined waters of the U.S. may be present within the project area on December 12, 2017. Coordination with the USACE determined that a permit under Section 404 of the CWA will be required for construction of the Proposed Action. During final design, TAA will coordinate with the USACE to obtain the required Section 404 permitting (i.e. Section 404 Individual Permit and/or NWP verification) and Section 401 Water Quality Certification from the ADEQ.

In accordance with Section 7 of the Endangered Species Act (ESA), the FAA consulted with USFWS. As stated in the USFWS's Biological Opinion, a pre-consultation meeting was held in Tucson with the USFWS on June 27, 2016. The USFWS was invited to the Agency Scoping meeting held in Tucson on September 22, 2016. No USFWS staff attended the agency scoping meeting and no formal comments were received during the scoping comment period. A pedestrian survey[6] was conducted between April 20 and June 24, 2017 to collect site-specific vegetation and wildlife information within the Detailed Study Area. In the fall of 2017, FAA staff conducted informal briefings with the USFWS about the status of the EIS and the preparation of the Biological Assessment. At that time the USFWS requested an additional pedestrian survey be conducted for Burrowing Owls. The additional survey was conducted in November 2017 as requested. The FAA prepared a Biological Assessment to analyze the potential impacts of the

[6] A pedestrian survey is defined as a *method of examining a site in which surveyors, spaced at regular intervals, systematically walk over the area being investigated.* Definition source: https://archaeologywordsmith.com/lookup.php?category=&where=headword&terms=pedestrian+survey)

Proposed Action on ESA-listed species and critical habitat under the jurisdiction of USFWS (see Appendix D of the Final EIS). The FAA determined the Proposed Action *may affect, is likely to adversely affect the PPC.* The USFWS concurred with FAA's determination in its Biological Opinion dated March 19, 2018 (see Appendix D of the Final EIS). The Final EIS states, in Section 4.5.3, that FAA determined in the Draft EIS that the Proposed Action *may affect, but is not likely to adversely affect the lesser long-nosed bat.* The lesser long-nosed bat was removed from the federal List of Endangered and Threatened Wildlife by the USFWS per the Federal Register Notice (83 FR 17093) published on April 18, 2018 and effective May 18, 2018. Therefore FAA and the USAF are not under any current federal obligation to implement the specific mitigation measures for the bat as part of USFWS's Biological Opinion for the proposed project.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the FAA initiated Section 106 consultation with the Arizona State Historic Preservation Office (SHPO) in June 2017. A Class III Cultural Resources Investigation was conducted for the proposed Undertaking in compliance with Section 106 of the NHPA and guidelines set forth by the Arizona State Museum and the Arizona SHPO. The purpose of the investigation was to identify any historic properties located within the Direct Area of Potential Effects (APE) that are listed or eligible for listing in the National Register of Historic Places (NRHP). Based on the analysis, the FAA determined there are no historic properties located within the Direct Effects APE. The FAA made the following finding: *No historic properties affected* by the proposed Undertaking within the Direct Effects APE. The FAA determined there is one historic property within the Indirect Effects APE known as the Three Hangars. Based on the analysis, the FAA made the following finding: *No Adverse Effect* by the proposed Undertaking on Three Hangars within the Indirect Effects APE. The SHPO concurred with the FAA's determinations and findings on February 15, 2018 (See Appendix F of the Final EIS).

Throughout the EIS process, the FAA and USAF coordinated with the City of Tucson, Pima County, and TAA with regard to compatible land use. The FAA received the required Land Use Assurance letter that TAA would continue to work closely with the City of Tucson and Pima County to ensure appropriate land use regulations are adopted and enforced in accordance with 49 U.S.C. § 47107(a)(10) to ensure land uses are compatible with airport operations. A copy of the Land Use Assurance letter signed by the TAA on December 4, 2017 is included in Appendix I of the Final EIS.

X. ENVIRONMENTAL CONSEQUENCES

The EIS was prepared to disclose the analysis and the potential environmental effects of the Proposed Action and the No Action Alternative in accordance with the requirements of NEPA, the CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 C.F.R. Parts 1500-1508); FAA Orders 1050.1F, *Environmental Impacts: Policies and Procedures* and 5050.4B, *National Environmental Policy Act (NEPA) Implementing*

Instructions for Airport Actions; and USAF's procedures for environmental impact analysis outlined in 32 C.F.R. Part 989, *Environmental Impact Analysis Process*.

This Section includes a brief summary of the potential impacts resulting from implementation of the Proposed Action. More detailed discussions of the potential impacts for each environmental impact category are contained in Chapter 4 of the Final EIS.

Section 4.2 of the Final EIS explains that Coastal Resources, Prime and Unique Farmlands, and Wild and Scenic Rivers are not present within the project area and would not be affected by the Proposed Action. Therefore, there is no discussion or evaluation of these resources in the Final EIS or this ROD.

Air Quality

The air quality assessment in the Final EIS in Section 4.4 demonstrates that the Proposed Action would not cause an increase in air emissions above the applicable federal *de minimis* thresholds. In addition, the Proposed Action must comply with Pima County codes. No local threshold identified in Pima County Code Title 17.04.340A.212 would be exceeded. Therefore, the Proposed Action conforms to the State Implementation Plan and the CAA and would not create any new violation of the National Ambient Air Quality Standards (NAAQS), delay the attainment of any NAAQS, nor increase the frequency or severity of any existing violations of the NAAQS. As a result, no adverse impact on local or regional air quality is expected by construction of the Proposed Action. However, construction of the Proposed Action would result in a short-term increase of particulate matter (airborne fugitive dust) emissions from vehicle movement and soil excavation in and around the construction site. Section 4.4.2.1 of the Final EIS states the Proposed Action does not change the number of aircraft operations or the fleet mix at TUS.

Biological Resources

Section 4.5.2 of the Final EIS states, the Proposed Action would be expected to include direct disturbance to PPC individuals, habitat loss, and disturbance of suitable habitat. PPC is listed as endangered and is protected under the ESA. PPC is also listed as *Highly Safeguarded* by the Arizona Department of Agriculture and is protected under the Arizona Native Plant Law and *Priority Vulnerable Species* by Pima County. Of the 82 PPC individuals within the Detailed Study Area, 11 PPC individuals could be avoided in the airfield area and seven could be avoided in Parcel "G" and Parcel "H." Therefore, 18 total PPC would be avoided. 59 PPC individuals would be affected in the airfield due to clearing, grading, and paving for the proposed new runway and FAA required safety areas. This also includes PPC affected where construction vehicles may traverse and by the location of the proposed construction staging area. An additional five PPC individuals would be affected by the proposed Air National Guard development on

Parcel "G" and "Parcel "H." Therefore, a total of 64 individual PPC could be affected directly. Exhibit 4-1 and Exhibit 4-2 of the Final EIS shows PPC individuals that would be impacted due to construction activities.

Approximately 11 acres of PPC habitat would be removed in the airfield area for the ASEP. In addition, approximately 13 acres of PPC habitat would be affected by the NGB's proposed MSA on "Parcel "H" (see Exhibit 4-3 of the Final EIS). A portion of the proposed haul road crosses Parcel G, where a road exists today. For this project, NGB anticipates providing new pavement in the same location as the existing roadway. Therefore, no additional PPC habitat would be removed on Parcel G by the proposed MSA. As shown on Exhibit 4-3 of the Final EIS, 24 acres would be affected by the Proposed Action. The FAA has determined the Proposed Action *may affect, is likely to adversely affect* the PPC. The USFWS concurred with FAA's determination in its Biological Opinion dated March 19, 2018 (see Appendix D of the Final EIS).

Section 4.5.3 of the Final EIS identifies the specific mitigation measures that will be implemented for impacts to federally listed species, specifically the PPC. A total of 24 acres of PPC habitat would be affected. Thus, the only acceptable mitigation to the USFWS is acquisition of mitigation credits for this species from the Palo Alto PPC Conservation Bank. TAA is required to acquire 11 acres of mitigation credits for the Proposed Action and the NGB is required to acquire 13 acres of mitigation credits for its proposed MSA. FAA will require TAA implement the mitigation measures for the 11 acre loss of PPC habitat through a special condition in a Grant-in-Aid agreement with TAA.

The only migratory bird species observed in the Detailed Study Area was the western burrowing owl. Section 4.5.2.1 of the Final EIS states that the presence of suitable habitat for this species was identified during field surveys of the airport. One western burrowing owl was observed and documented in the Detailed Study Area. Although not a federally listed species, the western burrowing owl is protected under the MBTA and is listed as a *Species of Concern* by the USFWS and *Priority Vulnerable Species* by Pima County. The Proposed Action would be anticipated to impact the location of this burrow. Section 4.5.3 of the Final EIS states that an additional survey for western burrowing owls would be conducted within 30-days before the start of construction activities. If any western burrowing owls are found, the Arizona Game and Fish Department and USFWS would be consulted to determine the appropriate action to remove burrowing owls from the Detailed Study Area before construction.

No special status species were observed within the Detailed Study Area. However, the presence of suitable habitat for these species was identified. With mitigation, the Proposed Action would not reduce the viability of the Merriam's mouse, western red bat's population, western yellow bat, Tucson shovel-nosed snake, and Tumamoc globeberry plant.

Climate

Sections 4.6.2.1 and 4.6.2.2 of the Final EIS states the Proposed Action would not have an adverse impact to climate change nor would the potential changes in climate have an impact on the Proposed Action.

Department of Transportation Act, Section 4(f)

Department of Transportation Act (DOT), Section 4(f) only applies to U.S. Department of Transportation modal agencies such as the FAA. The USAF is not subject to the requirements of DOT Act Section 4(f). Section 4.7 of the Final EIS presents the analysis of potential impacts to three properties identified in the General Study Area that are considered Section 4(f) resources, including: a portion of one publicly owned park, the Manuel Herrera Jr. Park; one structure that includes three aircraft hangars, referred to as the Three Hangars (recommended highly significant architecturally and historically and eligible for inclusion in the NRHP); and one recreation facility, the Sunnyside Pool. Implementation of the Proposed Action would not result in the physical or constructive use of any Section 4(f) resource. Under the Proposed Action, the Three Hangars would continue to be exposed to 65-70 DNL noise levels. These noise levels would not substantially impair the property because the activities, features, and attributes that qualify the property for protection under Section 4(f) would not be affected by the implementation of the Proposed Action. In addition, the Proposed Action would not cause significant air pollutant emissions, water pollutants, or other environmental impacts that could affect the property. Therefore, Sections 4.7.2.1 and 4.7.2.2 of the Final EIS state the Proposed Action would not result in a physical or constructive use of the any protected DOT Section 4(f) property.

Hazardous Materials, Solid Waste, and Pollution Prevention

Section 4.8.2.1 of the Final EIS states, the Proposed Action would require the removal of the following aboveground storage tank and underground storage tanks including:

- One aboveground storage tank in a concrete containment located near the Three Hangars containing oil.
- Two subgrade vaults and a wash pad with a drain to an oil-water separator and a manhole near the former fire station.
- A fenced hazardous material storage area on a curbed concrete pad covered by a canopy located in the area of the former fire station. Material is typically from maintenance activities, such as paints, motor and engine oil, solvents, film forming foam for firefighting, and related materials.

The contents of these sites would be disposed of by TAA as part of their closure in coordination with the ADEQ Underground Storage Tank Program. The paints, motor and engine oil, solvents, film forming foam for firefighting contents would be removed and disposed of per guidance from the ADEQ's Waste Programs Division requirements to ensure potential hazardous materials are safely managed and properly disposed.

The Proposed Action would require the demolition of 12 ECMs used for storage of explosives and other materials at AFP 44. TAA would be responsible for completing the demolition of the 12 ECMs after replacement ECMs have been built and appropriately determined by the USAF as operational. The ECMs consist of concrete structures overlain by soil and capped by asphalt that has degraded over time. Soil surveys and lead based paint investigations on the exteriors of the ECMs led to the conclusion that the waste stream generated by demolition and removal of the sampled structures is not expected to result in a release of hazardous materials. However, because the ECMs were still in use a complete survey of potential lead-based paint (LBP) sources on the interior of the ECMs and soil sampling directly underneath the ECMs could not be conducted.

The Proposed Action would occur within surface boundaries of the Tucson International Airport Area (TIAA) Superfund Site Areas A and B. However, the construction and implementation of the Proposed Action would not impact the ongoing remediation of existing contaminated sites because of the depth below the surface of the groundwater contamination. There would be no known ground disturbance of contaminated soil. The USAF and the Airport's existing soil, water, and air quality remediation efforts would remain in place.

The Proposed Action's construction activities would avoid groundwater monitoring wells associated with the EPA National Priorities List. The wells would continue to be accessible and monitored. Therefore, it is anticipated that construction activities included in the Proposed Action would not contribute to the existing contamination of the TIAA Superfund Site.

The Proposed Action would increase the volume of solid waste generated at TUS during construction. There would be no change to solid waste for operational activities. TUS would be able to recycle solid waste generated by construction activities, including materials like cardboard, aluminum, landscape waste material, concrete, and asphalt. Copper would be recycled at Desert Metal Recycling, metal at SA Recycling, and paper waste would be recycled by Republic Services at Re-Community Recycling in Tucson.

Appendix E of the Final EIS identifies various sites of "wildcat" or illegal dumping of trash on Parcel H along Aerospace Parkway. The general locations of these illegal trash dump sites is shown in Figures 10, 12a, 12b, and 12c of Appendix E. These trash dump sites would not be disturbed by the proposed ASEP or the MSA projects directly. However, as a condition of approval of the release of Parcel H for sale at fair market value, TAA must

remove these trash dumps and dispose of those materials in a lawful manner at an appropriate refuse site. Any hazardous materials in these illegal dump sites must be disposed of properly in accordance with federal Department of Transportation and local Pima County hazardous waste regulations.

Historical, Architectural, Archaeological, and Cultural Resources

Section 4.9.2 of the Final EIS states the FAA determined there are no historic properties located within the Direct Effects APE. The FAA made the following finding: *No historic properties affected* by the proposed Undertaking within the Direct Effects APE. The FAA determined there is one historic property within the Indirect Effects APE known as the Three Hangars. Based on the analysis, the FAA made the following finding: *No Adverse Effect* by the proposed Undertaking on Three Hangars within the Indirect Effects APE. The Arizona SHPO concurred with the FAA's determinations and findings on February 15, 2018 (See Appendix F of the Final EIS). The Proposed Action does not exceed the applicable thresholds of significance.

Land Use

Section 4.10 of the Final EIS states, under the Proposed Action, 12 ECMs located on AFP 44 would have to be demolished to prevent munitions storage safety arcs from extending onto the TUS airfield after relocation of Runway 11R/29L and to remove the ECMs from the relocated runway's safety areas. The ECMs are currently in use by the USAF for munitions storage. With the demolition of the 12 ECMs, USAF would lose approximately 177,000 cubic feet of storage capacity for AFP 44. Therefore, the Proposed Action would have an adverse impact on land use at AFP 44. Prior to the demolition of the 12 ECMs on and adjacent to Parcel F, replacement ECMs would be built near the B-Magazines on AFP 44 and determined operational by the USAF. Thus, no interim storage of explosive materials will be necessary at AFP 44 as a result of the Proposed Action.

Land identified as Parcel "F" would need to be acquired by TAA to provide TUS with sufficient land to maintain the necessary FAA required safety areas associated with the relocated runway. The purpose of the land exchange would be to comply with FAA Airport Design Standards. The land transfer would result in a change to the Airport Layout Plan and a change to the existing property boundaries.

The value of Parcel "F" to the USAF consists of more than the acreage to be acquired by TAA. The loss of this land also includes the loss of land for use as AFP 44 safety arcs and future development area, as described below.

- Loss of approximately 58 acres conveyed from USAF to TAA valued at 100%
- Loss of ability to cast explosive arcs on 79 acres of TAA property per 1959 easement with deed restriction property interest valued at 50% (39.5 acres)

- Loss development capability on 115 acres of USAF property valued at 50% decrement (57.5 acres)
- Total loss to USAF of 155 acres of land use

As part of the Proposed Action, and in order to maintain the existing munitions storage capacity of AFP 44 and mitigate the potential impacts to land use, TAA would secure the necessary funding for replacement munitions storage facilities to be built near the existing B-Magazines on AFP 44 that would provide the same storage capacity currently allowed to be stored in the 12 ECMs. FAA expects TAA to seek FAA funding assistance for the replacement ECMs after the ROD has been approved by FAA and the USAF in federal Fiscal Year 2019.

As part of the Proposed Action, and in order to mitigate the potential impacts to land use, TAA would transfer a parcel of land identified as Parcel "G" totaling 160 acres to the USAF for AFP 44.

In addition, TAA would make available a parcel of land identified as Parcel "H" totaling 290 acres to the USAF for AFP 44, and to the USAF, on behalf of the Arizona Air National Guard, for development of a new approximate 55-acre MSA for Tucson Air National Guard Base. FAA is clarifying its response to comment P-39 in the Final EIS here in this ROD that its action for Parcel "H" is to release TAA from its federal obligations for this parcel of land. After the obligations have been released, TAA may sell that property at fair market value. FAA understands that local government agencies, such as the City of Tucson and Pima County are interested in acquiring Parcel H to support future expansion of AFP 44, and for the proposed MSA. Nothing in the Final EIS or this ROD prohibits local government such as the City of Tucson and Pima County, or another buyer from acquiring Parcel "H" from TAA at fair market value once the federal obligations have been released. The Proposed Action land transfers would also be consistent with future land use plans for Pima County and the City of Tucson as well as USAF and TAA.

The FAA has received the required Land Use Assurance letter that TAA would continue to work closely with the City of Tucson and Pima County to ensure appropriate land use regulations are adopted and enforced in accordance with 49 U.S.C. § 47107(a)(10) to ensure land uses are compatible with airport operations. A copy of the land use assurance letter signed by the TAA on December 4, 2017 is included in Appendix I of the Final EIS.

Natural Resources and Energy Supply

Section 4.11 of the Final EIS evaluates the impacts to Natural Resources and Energy Supply by the Proposed Action. While implementing the Proposed Action would potentially increase the demand for electricity, the potential demand would not exceed

the existing and future supplies due to TUS's increase in solar power production and TEP's existing and future electric generation capacity. Under the Proposed Action, additional natural gas would be needed to provide for the proposed MSA for the AANG in Parcel "H." These facilities are anticipated to be less than 50,000 square feet for potential storage facilities, guard buildings, etc. Therefore, the potential increase in demand for natural gas would be minimal due to the small size of the proposed facilities. During construction, it is not anticipated there would be any additional need for natural gas.

As a result of implementing the Proposed Action, proposed airfield improvements would be constructed that may cause a portion of aircraft operations to taxi a farther distance. The proposed replacement runway would be constructed approximately 94 feet farther from the existing terminal, general aviation, and AANG facilities, which would cause a slight overall increase in average aircraft taxi distance. Due to the short proposed taxi distance and the availability of fuel in the region, any increase in demand is expected to be minimal and would not exceed the existing supplies.

Proposed construction activities would require the use of typical paving and construction materials such as sand, gravel, concrete, and asphalt. Metal wiring and plastic insulation would be used for new lighting. These materials are not in short supply and construction of the Proposed Action would not exceed the available supply of these materials. Construction activities may require natural resources such as dirt for fill material, asphalt, water, wood, or gravel. TUS has a stockpile of dirt for fill material southeast of the terminal area on Airport property. Asphalt, sand, and gravel can be found six miles east of TUS at the Swann Road Plant and at other vendor locations in Pima County.

Noise and Noise-Compatible Land Use

Section 4.12 of the Final EIS states during construction of the Proposed Action, various runway closures could temporarily introduce additional aircraft overflights and potential noise impacts to areas around the Airport. However, due to the preliminary phasing plan to construct the Proposed Action, the potential for noise impacts are not anticipated to be long-term or introduce a significant change to noise sensitive facilities. Runway 11R/29L (the existing General Aviation Runway) is anticipated to be closed up to 12 months. However, this runway is not used by commercial or military operations due to the size of the runway and the aircraft operations from this runway are not a major contributor to the size or shape of the noise contours. After the relocation and approval of use of 11R/29L, Runway 11L/29R would be closed for approximately five months to complete the Proposed Action construction. This would not result in a long-term condition and is not expected to cause a significant change in the noise environment.

The Proposed Action would result in a 1.5 dB increase within the 65 DNL noise contour, which is considered a significant impact as described in Table 7-1 of FAA Order 5050.4B. Under the Proposed Action there would be an estimated 2,199 people living within the 65 DNL noise contour as shown in Table 4-40 of the Final EIS. Table 4-41 of the Final EIS states there would be 78 housing units and 272 people located within the 1.5 dB increase area. Exhibit 4-19 of the Final EIS shows the housing units in the potential areas of significant noise impact. There are no non-residential noise sensitive land uses such as churches, nursing homes, hospitals, or libraries within any of the contours. There is one school, the Pima Community College-Aviation Technology Center located in the DNL 65 dB noise contour. However, this facility, which is located on airport property, would be considered a compatible land use due to its function dealing with aircraft mechanics and structural repair.

Section 4.12.3 of the Final EIS identifies the mitigation, avoidance and minimization measures for impacts due to airport noise from the Proposed Action. This includes:

For the purposes of mitigating the significant noise increases, the following actions by TAA through a grant-in-aid from the FAA would occur:

- Offer to sound-insulate 27 single-family housing units
- Offer to sound-insulate 4 two-family housing units
- Offer to sound-insulate 17 multi-family housing units
- Offer 19 manufactured/mobile housing units acquisition. Since mobile homes cannot be effectively sound insulated because of the nature of the home to be able to be moved from place to place, the owners of the 19 mobile homes within the area of 1.5 dB increase within the DNL 65 dB noise contour for the Future (2028) Proposed Action would be given an offer for acquisition and residents would be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. TAA has effectively relocated other mobile home parks in the past under 14 C.F.R. Part 150. TAA will verify the number and types of all the housing units and their eligibility prior to implementing the mitigation.

Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

Section 4.13.2 of the Final EIS states the Proposed Action would not result in long-term economic growth for the area near TUS. Temporary growth in economic activity from the creation of construction jobs would occur during construction. There would be no modifications to public roadways as part of the Proposed Action. The Proposed Action would not result in the division of established communities near TUS, nor would the Proposed Action result in mandatory acquisition or the conversion of any residential

properties to airport property. Residents of housing units in significant noise increase areas would be given an offer for acquisition and residents would be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. Potential acquisition would be voluntary. Section 4.7.2.2 of the Final EIS states that under the Future (2028) Proposed Action, Manuel Herrera Jr. Park would experience a decrease in noise levels and would no longer be exposed to DNL 65-70 dB noise levels that result from shifting aircraft south, away from the park. This section of the Final EIS also states that the Sunnyside Pool would be outside the DNL 65 dB noise contour. In accordance with Section 4(f), there is no direct or constructive use. Therefore, there is no mitigation required for these two resources.

Neither the TAA nor the USAF are subject to local property taxes. Therefore, there would be no change in local tax base as a result of implementing the Proposed Action specifically addressing the proposed land exchanges. The implementation of the Proposed Action would result in land transactions/conveyance between the USAF and the TAA, as well as the relocation of ECMs on AFP 44.

Section 3.13.2.2 of the Final EIS states the FAA used Version 2d of FAA's Aviation Environmental Design Tool (AEDT) to evaluate impacts to potential environmental justice populations to assist in local outreach efforts. The AEDT screening identified minority populations (composed primarily of Hispanic or Latino population and American Indian populations) and low-income populations in the Sunnyside neighborhood.

Section 4.13.2 of the Final EIS states the Proposed Action would cause an impact to housing units in areas considered to be environmental justice communities. However, the Proposed Action would not have a disproportionately high and adverse effect on minority populations and low-income populations. This is because under the Proposed Action there would be 74 fewer total people affected by airport noise of 65 DNL and greater compared to the Future 2023 No Action Alternative as disclosed in comparing Tables 4-28 and 4-37. For the Future 2028, the difference in total population between the Proposed Action and No Action Alternative is 11 people, comparing Tables 4-32 and 4-40 in the Final EIS. Implementation of the Proposed Action would not cause those populations to suffer more than and the noise impact would not be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority and non-low income populations. In accordance with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and DOT Order 5610.2, *Environmental Justice in Minority and Low-Income Populations*, the FAA provided opportunities for meaningful public involvement by minority and low-income populations. Therefore, the FAA and USAF believe that the Proposed Action is appropriate and is their preferred alternative.

Section 4.13.2 of the Final EIS states the Proposed Action would not result in the release of, or exposure to, significant levels of harmful agents in the water, air, or soil that would affect children's health or safety or result in an elevated risk related to health or safety concerns for children.

Visual Effects

Section 4.14 of the Final EIS states as a result of implementing the Proposed Action, the relocation of the lights associated with relocated 11R/29L would cause light emissions similar to the existing lights, which are currently used to conduct safe airport operations. The residences south of TUS would not be able to see the relocated REILS, because of the existing terrain and the distance and the additional lights coming from existing man-made structures such as the Worldview building along Aerospace Parkway.

The Proposed Action also includes in-kind lighting for the replacement magazines on AFP 44 and additional lighting for the MSA on Parcel "H." The new or replacement lighting would not produce light emissions that are noticeably different from TUS or AFP 44's existing lighting and would not cause annoyance or disrupt normal activities of the surrounding community. Therefore, lighting from the Proposed Action would not significantly increase the overall light emissions due to their type, intensity, and distance from residential areas.

The Proposed Action would not include any significant vertical development and would not obstruct any view. The Proposed Action would not contrast with, or detract from, the visual resources and/or the visual character of the airport. The Proposed Action would not significantly alter, contrast, or obstruct the existing views due to the distance from residential areas and the obstacles in the way and because the relocated runway is similar in character to the existing airfield. Therefore, no noticeable change to the visual resources and visual character would occur.

Water Resources

Section 4.15 of the Final EIS states there are no wetlands located within the Detailed Study Area. Therefore, no impacts to wetlands would occur as a result of implementing the Proposed Action. Due to the location of the Proposed Action, construction and implementation of the Proposed Action would not directly impact these areas and would not include an encroachment in a floodplain. Therefore, the Proposed Action would not cause a direct impact to the 100-year floodplain and would not constitute a considerable probability of loss of human life or cause future damage to the floodplain that could be substantial in cost or extent. The Proposed Action does not include development within a regulatory floodway as delineated on the Flood Insurance Rate Maps for Pima County and the City of Tucson.

Approximately 1.1 acres (6,500 linear feet)[7] of the Hughes Wash Tributary #1 would be impacted due to the construction and implementation of the new parallel runway and taxiway. Exhibit 4-25 of the Final EIS shows the jurisdictional waters that would be impacted due to the Proposed Action on the airfield. Final design of the Proposed Action is not complete. However, the Proposed Action would include the installation of stormwater conveyance facilities within the airfield to maintain surface water flow in Hughes Wash Tributary #1.

In addition, approximately 0.06 acres (200 linear feet) of the Hughes Wash Tributary #2 would be impacted due to the construction and implementation of a new access road. The proposed new haul road would connect the Airport to the proposed new MSA. Exhibit 4-26 of the Final EIS shows the jurisdictional waters that would be impacted due to the proposed haul road and MSA.

Currently, there is the former East Hughes Access Road that was closed following opening of Aerospace Parkway in this location. However, in order to accommodate AANG operations, this roadway must be widened and strengthened. Final design of the Proposed Action is not complete. However, the Proposed Action would include the installation of a culvert in order to maintain surface water flow in Hughes Wash Tributary #2.

The Proposed Action would increase impervious surfaces on TUS by approximately 80 acres. This increase in impervious surface would result in an increase in surface water runoff discharge and volumes. This surface water increase would occur mostly within the airfield. The proposed drainage concept would prevent ponding by connecting the infield areas between the runways and taxiways using culverted crossings and discharging to the two existing conveyance channels (El Vado Wash and Hughes Wash). The design of the detention basins would take into account the 80-acre increase in impervious surface when determining the size needed. Therefore, no changes in surface water drainage patterns impacting downstream areas would occur due to the Proposed Action.

The Proposed Action would not exceed groundwater quality standards established by federal, state, local, and tribal regulatory agencies; or contaminate an aquifer used for public water supply such that public health may be adversely affected.

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7 The measurement of impacts to the washes are provided in both acres and linear feet at the request of the U.S. Environmental Protection Agency.

Irreversible and Irretrievable Commitment of Resources

Section 4.16 of the Final EIS presents the analysis of potential impacts to irreversible and irretrievable commitment of resources as a result of the No Action and Proposed Action. As a result of implementing the Proposed Action, proposed airfield improvements would be constructed that may cause a portion of aircraft operations to taxi a farther distance. The proposed replacement runway would be constructed approximately 94 feet farther from the existing terminal, general aviation, and AANG facilities, which would cause a slight overall increase in average aircraft taxi distance. Due to the short proposed taxi distance and the availability of fuel in the region, any increase in the resultant demand of fuel is expected to be minimal and would not exceed the existing supplies. Further, given the FAA's statutory mission to ensure aviation safety and given the Proposed Action decreases the number of hot spots on the airfield, any minimal increase in trafficking distance and fuel demand is outweighed by the Proposed Action's safety benefits.

The Proposed Action is not intended to attract additional demand for aviation services. The Proposed Action would require the commitment of resources, including construction labor, which is generally non-renewable and irretrievable. The construction of, and travel to and from, the proposed project site would require the consumption of petroleum products and petroleum-based electrical generation provided by the local power company. Commitment of these resources would not be considered significant.

As a result of implementing the Proposed Action, proposed construction activities would require the use of typical paving and construction materials. These materials are not in short supply and construction for the Proposed Action would not exceed the available supply of these materials. Construction activities may require natural resources such as dirt for fill material, asphalt, water, wood, or gravel. The Airport has a stockpile of dirt for fill material southeast of the terminal area on airport property. Asphalt, sand, and gravel can be found six miles east of TUS at the Swann Road Plant and at other vendor locations in Pima County. The demand for nonrenewable resources such as petroleum products or typical construction materials would not exceed current or future supplies and therefore would not constitute an irreversible or irretrievable commitment of resources.

As stated above, as a result of implementing the Proposed Action, ECMs located on AFP 44 would have to be demolished to prevent USAF munitions storage safety arcs from extending onto the TUS airfield after relocation of Runway 11R/29L and to remove the ECMs from the relocated runway's safety area. In order to maintain the existing munitions storage capacity of AFP 44, replacement storage facilities would be constructed elsewhere on AFP 44 that would provide the same munitions storage capacity currently allowed to be stored in the ECMs. These new ECMs would replace the 12 ECMs to be demolished on Parcel "F" and adjacent to Parcel "F." Construction of

the replacement ECMs and demolition of the 12 existing ECMs would be performed by TAA in coordination with the USAF. The Proposed Action also includes the ultimate transfer of land from Parcel "H" to the USAF on behalf of the NGB for construction of a MSA and access road to support the AANG at Tucson Air National Guard Base. The implementation of the Proposed Action would result in a exchange of land between the USAF and the TAA. Because neither the TAA nor the USAF are subject to local property taxes, there would be no change in the local tax base as a result of implementing the Proposed Action. The Proposed Action land transfers would be consistent with future land use plans for Pima County and the City of Tucson as well as USAF and TAA.

Section 4.16.2.1 of the Final EIS states the Proposed Action would not significantly alter, contrast, or obstruct the existing views due to the distance from residential areas, the obstacles in the way, and because the relocated runway is similar in character to the existing airfield. Therefore, there would be no noticeable change to the urban environment.

TAA would incorporate energy efficiency and sustainable measures to the extent possible into the Proposed Action. TAA plans to recycle and reuse existing pavement materials (i.e., "old pavement") for subgrade and base course for the Proposed Action to the maximum extent allowed by FAA standards.

Cumulative Impacts

Section 4.17 of the Final EIS describes the past, present, and reasonably foreseeable future actions relevant to cumulative impacts. Cumulative impacts are defined by the CEQ in 40 C.F.R. § 1058.7 as: *"The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions."* A cumulative effects analysis normally will encompass geographic boundaries beyond the immediate area of the Proposed Action, and a time frame, including past actions and foreseeable future actions, in order to capture these additional effects. The evaluation of cumulative impacts in the EIS considered the past, present, and reasonably foreseeable future projects or actions undertaken by TAA and other parties such as the City of Tucson and projects at AFP 44.

The level of cumulative impacts anticipated to occur is not significant due to the types of past, present, and reasonably foreseeable future projects, the extent of the built environment in which they would occur, the lack of certain environmental resources in the area, and the mitigation measures identified for the Proposed Action. Therefore, implementation of the Proposed Action would not result in significant cumulative environmental impacts.

XI. MITIGATION SUMMARY

The FAA and USAF have adopted practicable means to avoid or minimize the adverse environmental impacts of the Project Mitigation described in the Final EIS have been carried forward into this ROD. In accordance with 40 C.F.R. § 1505.3, the FAA and USAF will take appropriate steps to ensure that the mitigation actions required as a condition of the approval of the federal actions described in the Final EIS are implemented during the project development. The decisions contained in this Record of Decision are specifically conditioned upon full implementation of these mitigation actions. Mitigation measures will be identified and made special conditions in any FAA Grant-in-Aid Agreements with TAA for the Project. Per 32 C.F.R. § 989.22 NGB will prepare a Mitigation Monitoring Program for the MSA portion of the Project.

Air Quality

While the Proposed Action would not exceed the applicable threshold of significant for particulate matter, construction of the Proposed Action would result in a short-term increase of particulate matter (airborne fugitive dust) emissions from vehicle movement and soil excavation in and around the construction site. TAA would ensure that all possible measures would be taken to reduce fugitive dust emissions by adhering to guidelines included in FAA Advisory Circular (AC), *Standards for Specifying Construction of Airports*.

Standard Best Management Practices (BMPs) for construction using methods of controlling dust and other airborne particles will be implemented to the maximum possible extent and may include, but not limited to, the following:

- Exposing the minimum area of erodible earth;
- Applying temporary mulch with or without seeding;
- Using water sprinkler trucks;
- Using covered haul trucks;
- Using dust palliatives or penetration asphalt on haul roads; and,
- Using plastic sheet coverings.

In addition, TAA would follow PCC Title 17 Air Quality Control Section 17.14.040, Fugitive Dust Activity Permit, and obtain a fugitive dust activity permit for construction of the Proposed Action. The permit requires the permittee to control windblown dust, dust from haul roads, and dust emitted from land clearing, earthmoving, demolition, trenching, blasting, and road construction.

Biological Resources

Federally Listed (ESA) Species

Of the 82 PPC individuals within the Detailed Study Area, 11 PPC individuals would be avoided in the airfield area and seven would be avoided in Parcel "G" and Parcel "H." Therefore, 18 total PPC would be avoided. During the construction process, all PPC in the Detailed Study Area that can be avoided near the project limits would be marked and protected from traffic and equipment. Bright PPC markers (e.g., orange construction fence), and education and coordination with all construction workers would prevent direct impacts to those existing PPC that do not have to be directly affected by construction activities.

A fundamental component of the PPC recovery strategy is to preserve and restore quality habitat to protect individuals and their seedbanks. Mitigation bank credits would be purchased to compensate for the loss of PPC habitat at a 1:1 ratio of area of modified habitat. Approximately 11 acres of PPC habitat would be removed in the airfield area. An additional 13 acres would be affected by the proposed Air National Guard development on Parcel "G" and "Parcel "H." Therefore, 24 acres would be affected by the Proposed Action. Mitigation credits would be purchased for this amount from the Palo Alto PPC Conservation Bank by both TAA for the airport portion of the project and the National Guard Bureau for the proposed MSA.

A total of 59 PPC individuals would be affected in the airfield due to clearing, grading, and paving for the proposed new runway and FAA required safety areas. This also includes PPC affected by construction vehicles that may traverse the area and by the location of the proposed construction staging area. An additional five PPC individuals would be affected by the proposed National Guard Bureau development on "Parcel "H." Therefore, a total of 64 individual PPC would be affected directly. A transplanting and monitoring program would be implemented, to remove, salvage, and restore those 64 individual PPC.

PPC removal, salvage, and restoration would follow the Arizona Native Plant Law and Pima County Native Plant Preservation ordinance (Pima County Code § 18.72) to salvage PPC specimens. PPC would be transplanted according to the guidelines that were used during the relocation of PPC individuals removed during the construction of the East Hughes Access Road Relocation Project.

The only exception for this Proposed Action would be that all PPC would be transplanted onto existing Airport property that is restricted from access by the general public so the PPC would not be stolen, as had happened for another project in the same area.

Active salvaging of PPC would occur after final project design has been completed to ensure that all affected PPC are identified. Transplanting would occur before clearing and grubbing activities in that area begins. The following guidelines would be used during transplanting:

- Move the PPC between March and April. Planting pits shall be pre-dug prior to any salvage operations and equal to the root ball width and depth.
- Backfill planting pit with a six inch layer of soil. Use soil from where the plant was originally growing if possible. Compact to 95% to remove all air pockets.
- Screen backfill soil before backfilling the plant pit. The intent of screening backfill is to eliminate soil clods or chunks that can create air pockets.
- Clearly mark the solar orientation of each cactus prior to salvaging operations. Cacti shall be replanted with a solar orientation that matches original solar orientation.
- Salvage cacti so that no or minimal damage occurs to the basal and lateral roots. Root balls should be dug on a case-by-case basis for each plant based on professional judgment, but usually the minimum being 12 inches wide (six inches from each edge of plant).
- Use pruning clippers to trim any roots damaged during the transplant process.
- Plant each cactus at the same planting depth that it was originally grown.
- Create a small mound around the base of the cacti after planting, backfilling and compaction of the plant pit.
- Replant each cactus at the designated transplant area immediately after it is removed from the original site. Do not harden off the roots and do not add sulfur in the planting hole or on the roots.
- Take notes of each PPC before starting a transplant. Observe and take notes of the environment and nearest plant neighbors for future reporting and monitoring efforts.
- Replant PPC away from any tree canopies, large shrubs, dense stands of perennial grasses or non-native grasses, steep slopes or wash bottoms, and not within 15 feet of a saguaro unless the PPC is under or on the edge of similar canopy, grassland, or steep slopes in its original location.
- Provide all transplanted PPC with gel water irrigation supplement time-release containers per manufacturer's instructions at the time of transplant and for a minimum of 1 year after transplant.
- Provide GPS locations and a location map of the transplanted cacti for future monitoring efforts.

- Topsoil from disturbed areas should be stockpiled and replaced to the extent practicable during restoration to retain the potential seed bank.

TAA would record data on the PPC for a period of 5 years following the transplant. Monitoring of the individual transplanted PPC will be conducted to document positive and negative changes in the PPC from year-to-year, which will inform future efforts to transplant this species and ultimately benefit PPC recovery. TAA will provide this data to FAA and to USFWS. USAF and TUS are conservation stewards of PPC. PPC surveys and monitoring are conducted every 5 years on AFP 44 and all PPC individuals are marked. Furthermore, at least one area containing a dense cluster of PPC is enclosed by protective fencing on AFP 44. These conservation stewardship activities should and will likely continue in perpetuity.

Migratory Bird Treaty Act Species

Mitigation measures would be implemented to minimize the impact to the Cactus Ferruginous Pygmy-Owl and the Rufous-Winged Sparrow migratory bird species. If vegetation clearing occurs during the migratory bird breeding season (March 1 - August 31), the contractor shall avoid any new active bird nests. If the active nest cannot be avoided, the contractor shall notify a qualified wildlife biologist and construction engineers to evaluate the specific situation. During the non-breeding season (September 1 - February 28) vegetation removal is not subject to this restriction.

Although not a federally listed species, the western burrowing owl is protected under the MBTA and is listed as a Species of Concern by the USFWS and Priority Vulnerable Species by Pima County. A western burrowing owl was observed and documented within the Detailed Study Area. Therefore, an additional survey for burrowing owls would be conducted prior to the immediate start of construction activities, generally within 30 days of the start. If any western burrowing owls are found, the Arizona Game and Fish Department (AGFD) and USFWS would be consulted to determine the appropriate action to remove any western burrowing owls from the Detailed Study Area before construction.

Any owls that are found would not be disturbed without AGFD and USFWS consultation as it may violate the MBTA and AGFD guidelines. Mitigation may include flushing owls prior to grading, removal of the western burrowing owl from the project site, and/or deferment of grading until artificial burrows can be constructed. Western burrowing owl removal and artificial burrow construction can be facilitated through Wild at Heart, the Burrowing Owl Project, and Partners in Flight. Assuming conservation measures are implemented, direct and indirect project effects are unlikely to reduce the viability of the local western burrowing owl population.

Special Status Species

While no specific Special Status Species were observed in the Detailed Study Area, mitigation measures to minimize impacts to Special Status Species habitat include vegetation salvage and restoration following the Pima County Native Plant Preservation (Pima County Code §18.72) and the Watercourse and Riparian Habitat Protection ordinances (Pima County Code §16.30).

Hazardous Materials, Solid Waste, and Pollution Prevention

The Proposed Action would involve transport, use, and disposal of hazardous materials, including those resulting from the removal of above ground storage tanks, underground storage tanks, leaking underground storage tanks, and hazardous material storage areas. However, the materials would be safely managed and properly disposed of per guidance from the ADEQ. In addition, the ongoing remediation of existing contaminated sites would remain in place and the Proposed Action would not interfere with those remediation efforts. Therefore, the Proposed Action does not exceed the applicable thresholds of significance and no mitigation measures are required.

However, because the ECMs are still in use, a complete survey of potential LBP sources on the interior of the ECMs and soil sampling directly underneath the ECMs could not be conducted. If any LBP or asbestos is found at the time of the additional surveys, it would be properly disposed of in accordance with USAF policy and per guidance from the ADEQ's Waste Program Division.

TAA would conduct the following surveys prior to and following demolition of the ECMs.

- Prior to the demolition of the 12 ECM sites, a LBP survey would be performed for any painted or similarly coated surfaces inside each structure. It is recommended that this survey be performed during cooler weather in order to optimize the performance of the XRF analyzer. Based on the relatively low test results for lead detected during the site testing of the exterior of the 12 ECMs, it is likely that the waste stream generated by demolition and removal of the sampled structures would not exhibit the lead toxicity characteristic of hazardous waste. However, the presence of lead in the paint would be taken into account with regard to worker safety during demolition.
- Prior to the demolition of the 12 ECM sites, an asbestos survey would need to be performed for each structure. An Asbestos Hazards Emergency Response Act - certified Building Inspector would perform a visual inspection and sampling of suspect materials to identify the presence of asbestos-containing materials in specified locations in the structures as required for National Emissions Standards for Hazardous Air Pollutants compliance prior to demolition.

- Following demolition of the 12 ECM structures, a minimum of three soil samples would be collected from the soil directly beneath the former location of each ECM. The soil samples would be analyzed for herbicides, pesticides, priority pollutant metals, and PAHs using EPA Methods 8154, 8141 and 8081, 6010/7471, and 8270, respectively. Additionally, the soil samples would also be analyzed for explosive residues (using EPA Method 8330) and for nitrates (EPA Method 9056).

In addition, the following avoidance and minimization measures would further minimize impacts from the Proposed Action. Four of the well listings (ADWR #55-540974, 55-209879, 55 524217, and 55-512173) are located within the runway and taxiway areas. Although the surrounding area of the wells would be disturbed and/or paved, the wells would be avoided and their existing accessibility would be maintained. During the construction process, all of these wells will be marked and protected from traffic and equipment to prevent direct impacts to those wells.

TUS will recycle solid waste generated by construction activities, including materials like cardboard, aluminum, landscape waste material, concrete, and asphalt. TAA plans to recycle and reuse existing pavement materials (i.e., "old pavement") for subgrade and base course for the Proposed Action to the maximum extent allowed by FAA standards.

Prior to actual sale of Parcel H, at fair market value, TAA will remove the various "wildcat" or illegal dump sites and dispose of those materials consistent with Department of Transportation and local Pima County hazardous waste regulations.

Historical, Architectural, Archaeological, and Cultural Resources

The Proposed Action does not exceed the applicable thresholds of significance. In addition, the proposed Undertaking would have no effect on historic properties within the direct APE. Therefore, no mitigation measures are required. While, the FAA did not evaluate Archaeological sites AZ BB:13:839(ASM) and AZ BB:13:851(ASM), these two sites must be avoided by the Proposed Action, until such time as they can be evaluated. Due to the distance of these sites to the location of the proposed AANG MSA and roadway to be constructed as part of the Proposed Action, these two sites would be avoided as part of the Undertaking and not disturbed. It will be the responsibility of the AANG to make sure these sites are avoided during construction activities for the proposed MSA.

If previously undocumented buried cultural resources are identified by TAA's contractors or by AANG's contractors during ground-disturbing activities, all work in the immediate vicinity of the discovery would stop until the find can be confirmed by a professional archaeologist and evaluated for its significance. It will be TAA and/or the AANG's responsibility to notify the FAA, SHPO, and tribal officer if undocumented resources are found. If human remains and/or funerary items are found on TAA

property, Arizona Revised Statutes (ARS) Sections 41-865 and ARS 41-844 require that the ASM be notified of the discovery, so that cultural groups who claim cultural or religious affinity to them can make appropriate arrangements for the repatriation and reburial of the remains.

If human remains, funerary items, sacred objects, or objects of cultural patrimony are found on USAF lands, the appropriate USAF official would be notified of the discovery in order to follow guidelines pursuant to the Native American Graves Protection and Repatriation Act (43 C.F.R. § 10.4) and the "Unanticipated Discoveries Plan for Archaeological Resources at AFP 44, Pima County, Arizona."

Land Use

Mitigation for land use impacts include the exchange of land parcels that would provide for potential future economic growth and safety area protections for one of the region's major employers, and would help to ensure continued operational capabilities and safety buffers for AFP 44. In order to mitigate the adverse effects of the Proposed Action on USAF real property and operational capability at AFP 44, the following mitigation measures are built into the Proposed Action. These include actions to ensure that TUS operates in the safest manner possible, while maintaining the operational capability of AFP 44 and Tucson Air National Guard Base. The Proposed Action land transfers would be consistent with future land use plans for Pima County and the City of Tucson as well as USAF and TAA.

TAA, as the Project Sponsor, would apply for federal assistance to provide for the following mitigation measures:

- Demolish 12 ECMs located on and adjacent to Parcel "F" once replacement ECMs have been constructed and occupied;
- Provide funding to design and construct replacement ECMs with the same munitions storage capacity elsewhere on AFP 44 to maintain the capability and capacity of AFP 44, in accordance with FAA regulations and eligibility guidelines for reimbursable project expenses;
- Construct a replacement AFP 44 perimeter fence along the western boundary of Parcel "F";
- Acquire Parcel "F" at fair market value from USAF;
- Transfer Parcel "G" to USAF for fair market value in exchange for Parcel "F";
- Transfer Parcel "H" ultimately to USAF at fair market value; and,
- Terminate the 1959 easement over Airport property near the existing 12 ECMs.

Natural Resources and Energy Supply

No demand for energy or natural resources has been identified due to the Proposed Action that would exceed current or future supplies. The Proposed Action does not exceed the applicable thresholds of significance; therefore, no mitigation measures are required. However, the following minimization measures are being provided to further minimize impacts from the Proposed Action. TAA would incorporate energy efficiency and sustainable measures to the extent possible. TAA plans to recycle and reuse existing pavement materials (i.e., "old pavement") for subgrade and base course for the Proposed Action to the maximum extent allowed by FAA standards.

Noise and Noise-Compatible Land Use

Consistent with the 1992 Federal Interagency Committee on Noise Report, the FAA considers mitigation outside the DNL 65 dB on a case-by-case basis. Since the demand for federal funding of airport noise mitigation is greater than the supply, FAA policy is to mitigate the areas affected by DNL 65 dB and greater first before considering areas impacted by lower airport noise levels for mitigation. Generally, normal building construction provides a 20 dB noise level reduction to achieve an interior sound level of 45 dB.

The mitigation measures for noise include sound insulation for eligible single-family and multi-family housing units, as well as acquisition of manufactured/mobile home parks within the previous DNL 65 dB noise contour.

Of the 78 housing units in the significant increase area of the Proposed Action noise contour, eight single-family units and three multi-family units have been previously sound insulated. This leaves 67 housing units that are to be mitigated in the following manner. In order to be eligible for sound insulation the interior noise levels must be at DNL 45 dB or above. For the purposes of mitigating the significant noise increases, the following actions will occur by TAA:

- Offer to sound insulate 27 single-family housing units
- Offer to sound insulate four two-family housing units
- Offer to sound insulate 17 multi-family housing units
- Offer 19 manufactured/mobile housing units acquisition. Since mobile homes cannot be effectively sound insulated because of the nature of the home to be able to be moved from place to place, the owners of the 19 mobile homes within the area of 1.5 dB increase within the DNL 65 dB noise contour will be given an offer for acquisition and residents will be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. TAA has effectively relocated other mobile home parks in the past under 14 C.F.R. Part 150.

TAA will verify the number and types of all the housing units and their eligibility prior to implementing the mitigation. TAA may decide to use its Part 150 noise mitigation program or develop and manage a specific mitigation program for the ASEP as method for installation of sound insulation or acquisition of manufacturers/mobile home parks.

Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

Based on the socioeconomic impact analysis, the construction and implementation of the Proposed Action would require the transfer of approximately 58 acres of land referred to as Parcel "F" from the USAF to the TAA. Parcel "F" is currently used by the USAF to store explosives in 12 ECMs. The Proposed Action includes the demolition of the 12 ECMs in Parcel "F" and adjacent to Parcel "F" to maintain the necessary FAA and USAF required safety areas.

Mitigation for the socioeconomic impact includes relocating the ECMs elsewhere on AFP 44 in order to maintain USAF capabilities. The USAF would be reimbursed by TAA for the fair market value of the 12 ECMs and compensated for any temporary disruption in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970. In addition, the USAF would ultimately receive land south of their current southern boundary (commonly referred to as parcels "G" and "H").

While there is no adverse impact to environmental justice populations, residents of housing units in significant noise increase areas would be given an offer for acquisition and residents would be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. Potential acquisition would be voluntary. Section 4.7.2.2 of the Final EIS states that both Manual Herrera Jr. Park and the Sunnyside Pool would be located outside of the 65 DNL noise contour for the 2023 and 2028 Proposed Action. Therefore, there is no constructive use of these properties under Section 4(f). No mitigation for these resources is required, as stated in Section 4.7.3 of the Final EIS.

Water Resources

The Proposed Action requires 11.6 acre-feet additional surface water storage volume necessary to attenuate the 100-year onsite surface water flows created by the 80 acres of new impervious surface. Mitigation for this impact has been proposed with the addition of new detention facilities that would effectively attenuate the stormwater discharge and volume.

Coordination with the USACE has determined that a permit under Section 404 of the CWA would be required for construction of the Proposed Action. The construction of the new parallel runway and taxiway would result in approximately 1.1 acres (6,500 linear feet)[8] of impact to the Hughes Wash Tributary #1 and an increase in impervious surface. This activity would require an Individual Section 404 permit from the USACE. During final design, TAA would coordinate with the USACE to obtain the required Section 404 permitting (i.e. Section 404 Individual Permit and/or NWP verification) and Section 401 Water Quality Certification from ADEQ. Furthermore, coordination with the ADEQ would be conducted by TAA in accordance with Section 402 of the Clean Water Act to ensure a NPDES permit is obtained.

A requirement of NPDES permits, for both operations and construction activities, is development of a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP outlines how stormwater run-off, erosion, and sediment would be controlled in order to minimize polluted stormwater run-off into nearby waters. The NPDES Construction General Permit is a type of general permit that is required if construction activities would disturb 1 acre or more of land. Under this permit, construction refers to any actions that result in disturbance of the land, including clearing, grading, and other similar activities. It also includes construction-related activities, which occur in areas that support the construction project such as stockpiles and borrow areas.

The construction of the new access road would impact approximately 0.06 acres (200 linear feet) of the Hughes Wash Tributary #2, which would fall under the Nationwide Permit No. 14. During final design, AANG would coordinate with the USACE and ADEQ to obtain the required permits.

To further minimize impacts from the Proposed Action, erosion control BMPs would be adopted to maintain runoff on-site and minimize the potential for adverse effects on downstream water quality. TAA would ensure that construction activities adhere to guidelines included in the FAA Advisory Circular 150/5370-10G, *Standards for Specifying Construction of Airports*.

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[8] The measurement of impacts to the washes are provided in both acres and linear feet at the request of the U.S. Environmental Protection Agency.

XII. AGENCY FINDINGS AND DETERMINATIONS

Federal Aviation Administration Determination under Provisions of the Airport and Airways Improvement Act (49 U.S.C. §§ 47106 and 47107)

There are numerous findings and determinations prescribed by law that must be made by the FAA as preconditions to agency approvals of airport project funding applications. Any grant-in-aid application and approval would also reflect appropriate statutory and regulatory assurances and other terms and conditions for FAA's actions. This ROD provides the basis to proceed with making those findings and determinations. The agency will make any necessary funding determinations in conjunction with its consideration of appropriate applications and availability of funding.

The following determinations are prescribed by the statutory provisions set forth in the Airport and Airway Improvement Act of 1982, as codified in 49 U.S.C. §§ 47106 and 47107.

- **The project is reasonably consistent with existing plans of public agencies for development of the area (49 U.S.C. § 47106(a) and Executive Order 12372).** The determination prescribed by this statutory provision is a precondition to agency approval by the FAA of airport project grant funding applications. To make this determination, the FAA considered local land use and development plans and requested confirmation from local authorities concerning consistency determinations.

  The FAA reviewed and considered the plans, goals and policies of local governments and provided opportunities for local governments and the public to comment on the scope and findings of the EIS. Pima County's long range county plan known as the *Pima Prospers Comprehensive Plan* and TUS's *2014 TUS Airport Master Plan* each describe planning goals for the area surrounding TUS. These planning goals are aimed to support the successful implementation of the Pima County Aerospace, Defense and Technology Research and Business Park. In addition, Pima County also maintains the goal that land around TUS shall provide a mix of land uses in order to "protect, connect, and grow the regional employment base." Lands owned by Pima County, the TAA, and Arizona State Land Department will be designated for land uses that would promote economic and industrial development and be related or compatible with the Airport. In addition, the City of Tucson's General and Sustainability Plan known as *Plan Tucson*, states that the planning goal for the TUS-area is to conserve neighborhood centers and promote development of Airport-related commercial/industrial activities north and south of the Airport.

Throughout the EIS process, the FAA and USAF coordinated with the City of Tucson, Pima County, and TAA with regard to compatible land use. The FAA received the required Land Use Assurance letter that TAA would continue to work closely with the City of Tucson and Pima County to ensure appropriate land use regulations are adopted and enforced to ensure land uses are compatible with airport operations. A copy of the Land Use Assurance letter signed by the TAA on December 4, 2017 is included in Appendix I of the Final EIS.

The FAA finds that the Project is reasonably consistent with the existing plans of public agencies authorized by the state in which the airport is located to plan for the development of the area surrounding the airport. The FAA is satisfied that it has fully complied with 49 U.S.C. 47106(a)(1).

- **Fair consideration has been given to the interests of communities in or near the Project location (49 U.S.C. § 47106(b)(2)):** The determination prescribed by this statutory provision is a precondition to agency approval of airport development project funding applications.

  Section VII of this ROD summarizes the agency and public involvement efforts, and Section VIII of this ROD summarizes the tribal consultation. More information on FAA's public involvement activities are provided in Appendix A of the Final EIS. Also contained in the Final EIS are agency concurrence letters: Appendix D contains Section 7 Consultation, Appendix F contains Section 106 Consultation, and Appendix J includes Government-to-Government Consultation.

  The FAA has determined that, throughout the environmental process from its earliest planning stages through the publication of the Final EIS and through public comment on the Final EIS, fair consideration was given to the interests of communities in or near the Project location.

- **Certification from the Airport Sponsor that it has provided an opportunity for a public hearing (49 U.S.C. § 47106(c)(1)(A)(i))**: The determination prescribed by this statutory provision is a precondition to agency approval for grant funding applications for airport development projects involving location of a new airport or new runway or a major runway extension. As summarized in Section VII of this ROD and detailed in Appendix A of the Final EIS, a public hearing was held on June 21, 2018. This was an opportunity for the public to provide input on the Draft EIS. The public comment period on the Draft EIS was from May 21, 2018 to July 9, 2018. Public comments on the Draft EIS were received from a total of 11 individuals, organizations, and governmental agencies during the official comment period (May 21, 2018 to July 9, 2018).

- **Appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land in the vicinity of the airport to purposes compatible with airport operations (49 U.S.C. § 47107(a)(10)).** The determination prescribed by this statutory provision is a precondition to agency approval or airport development project grant funding applications. Throughout the EIS process, the FAA and USAF coordinated with the City of Tucson, Pima County, and TAA with regard to compatible land use. The FAA received the required Land Use Assurance letter that TAA would continue to work closely with the City of Tucson and Pima County to ensure appropriate land use regulations are adopted and enforced in accordance with 49 U.S.C. § 47107(a)(10) to ensure land uses are compatible with airport operations. A copy of the Land Use Assurance letter signed by the TAA on December 4, 2017 is included in Appendix I of the Final EIS.

- **The proposed action involves the displacement and relocation of people and relocation assistance will be provided in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (42 U.S.C. § 4601 et *seq.*).** These statutory provisions, imposed by Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, require that state or local agencies, undertaking Federally-assisted projects that cause the involuntarily displacement of persons or businesses, must make relocation benefits available to those persons impacted.

  The Proposed Action would result in a 1.5 dB increase within the 65 DNL noise contour, which is considered a significant impact. There would be 78 housing units and 272 people located within the 1.5 dB increase area. Of the 78 housing units in the significant increase area of the Proposed Action noise contour, eight single-family units and three multi-family units have been previously sound insulated. This leaves 67 housing units that are to be mitigated in the following manner. For the purposes of mitigating the significant noise increases, TAA would offer 19 manufactured/mobile housing units acquisition and residents will be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. Mobile homes cannot be effectively sound insulated because of the nature of the home to be able to be moved from place to place. TAA has effectively relocated other mobile home parks in the past under 14 C.F.R. Part 150. TAA will verify the number and types of all the housing units and their eligibility prior to implementing the mitigation.

- **Determination that the airport development is reasonably necessary for use in air commerce or in the interests of national defense pursuant to (49 U.S.C. § 44502(b)).** The FAA has determined that the Proposed Action would maintain the safety, utility, and efficiency of TUS. The Project is necessary to ensure that TUS operates in the safest manner possible and to reduce risk of runway incursions to the extent practicable. To maintain the necessary FAA required safety areas as a result of the Project, TAA would need to acquire land from

AFP 44 from USAF. In return, the FAA would release TAA from its federal obligations for another parcel of land, identified as Parcel G, and make it available to USAF, and ultimately NGB to maintain munitions storage capacity of AFP 44. The proposed land transfers would be consistent with future land use plans for Pima County and the City of Tucson as well as USAF and TAA.

- **The FAA has given the Project the independent and objective evaluation required by the Council on Environmental Quality (40 C.F.R. § 1506.5).** As documented in the Final EIS and in this ROD, the FAA has objectively evaluated all reasonable alternatives for meeting the Purpose and Need (see 40 C.F.R. § 1502.14(a)). The process included FAA's selection of a third-party EIS contractor through a competitive process, to assist in conducting the environmental review. The environmental review included identifying the Purpose and Need, identifying reasonable alternatives, fully analyzing and disclosing potential environmental impacts, and developing appropriate mitigation measures. The FAA directed the technical analysis provided in the Draft and Final EIS. The FAA furnished guidance and participated in the preparation of the EIS by providing input, advice, and expertise throughout the planning and technical analysis, along with administrative direction and legal review of the project. From its inception, the FAA has taken a strong leadership role in the environmental evaluation of the Project and has maintained its objectivity. In addition, the FAA has on file a disclosure statement from the environmental consultant that satisfies the requirement of 40 C.F.R. § 1506.3(c).

Compliance with Laws, Regulations, and Executive Orders

This section addresses compliance with laws, regulations, and EOs not specific to FAA or USAF's regulatory authority.

- **Clean Air Act of 1970, as amended (42 U.S.C. § 7401 et seq.):** The Proposed Action would not cause an increase in air emissions above the applicable federal *de minimis* thresholds. In addition, the Proposed Action must comply with Pima County codes. No local threshold identified in Pima County Code Title 17.04.340A.212 would be exceeded. Therefore, the Proposed Action conforms to the State Implementation Plan and the CAA and would not create any new violation of the NAAQS, delay the attainment of any NAAQS, nor increase the frequency or severity of any existing violations of the NAAQS. As a result, no adverse impact on local or regional air quality is expected by construction of the Proposed Action.
- **Endangered Species Act of 1973 (16 U.S.C. § et seq.)**: In accordance with Section 7 of the ESA, the FAA prepared a Biological Assessment and entered into formal consultation with the USFWS to address potential impacts to ESA-listed species and critical habitat. Based on the analysis presented in the Biological Assessment, the FAA determined the Proposed Action *may affect, is likely to*

adversely affect the PPC. The USFWS concurred with FAA's determination in its Biological Opinion dated March 19, 2018. Although the Proposed Action would result in direct disturbance to PPC individuals, habitat loss, and disturbance of suitable habitat, the FAA has adopted all practicable means to avoid or minimize the impacts. In addition, TAA, as the operator of TUS, has agreed to implement mitigation measures including conservation banking and transplanting and monitoring of PPC.

- **Migratory Bird Treaty Act of 1918 (16 U.S.C. § 703-712)**: The Final EIS documents the FAA and USAF's consideration of the potential for impacts to migratory birds. In accordance with the conclusion and formal consultation with the USFWS under Section 7 of the ESA, the western burrowing owl is addressed in the Biological Assessment and mitigation measures are specified in the USFWS Biological Opinion dated March 19, 2018.
- **Department of Transportation Section 4(f) (49 U.S.C. § 303(c))**: The FAA has determined that implementation of the Proposed Action would not result in physical or constructive use of a Section 4(f) property. Three properties were identified in the General Study Area that are considered Section 4(f) resources, including: a portion of one publicly owned park, the Manuel Herrera Jr. Park; one structure that includes three hangars, referred to as the Three Hangars (recommended highly significant architecturally and historically and eligible for inclusion in the NRHP); and one recreation facility, the Sunnyside Pool. Implementation of the Proposed Action would not result in the physical or constructive use of any Section 4(f) resource to other purposes. Under the Proposed Action, the Three Hangars would continue to be exposed to 65-70 DNL noise levels. These noise levels would not substantially impair the property because the activities, features, and attributes that qualify the property for protection under Section 4(f) would not be affected by the implementation of the Proposed Action. In addition, the Proposed Action would not cause significant air pollutant emissions, water pollutants, or other environmental impacts that could affect the property. Therefore, the Proposed Action would not result in a constructive use of the property.
- **National Historic Preservation Act of 1966 (16 U.S.C. §470)**: Pursuant to Section 106 of the NHPA, the FAA and USAF, in consultation with the Arizona SHPO, made the following determination: *No historic properties affected* by the proposed Undertaking within the Direct Effects APE. The FAA determined there is one historic property within the Indirect Effects APE known as the Three Hangars. Based on the analysis, the FAA made the following finding: No Adverse Effect by the proposed Undertaking on Three Hangars within the Indirect Effects APE. The SHPO concurred with the FAA's determinations and findings on February 15, 2018.

- **Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*: and Department of Transportation Order 5610.2, *Environmental Justice in Minority and Low-Income Populations*:** The Proposed Action would cause an impact to housing units in areas considered to be environmental justice communities. However, in accordance with EO 12898, the Proposed Action would not cause a significant impact because it would not have a disproportionately high and adverse effect on minority populations and low-income populations. Implementation of the Proposed Action would not cause those populations to suffer more than and the noise impact would not be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority and non-low income populations. While there is no adverse impact to environmental justice populations, residents of housing units in significant noise increase areas would be given an offer for acquisition and residents would be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. Potential acquisition would be voluntary.

  In accordance with EO 12898 and DOT Order 5610.2, the FAA provided opportunities for meaningful public involvement by minority and low-income populations. Local outreach to environmental justice populations was conducted as part of the EIS process. Representatives of the Tohono O'odham Nation were sent invitations to the EIS meetings. Notification of the meetings and the request for comments during scoping and Draft EIS public comment period were advertised in *La Estrella*, the local weekly Spanish language publication. In addition, notifications were published in the *Sunnyside Neighborhood Association Newsletter*. Direct contact to community groups, organizations, and community leaders in the form of email notifications and follow up telephone calls were made in an effort to notify specific neighborhoods, such as Sunnyside, to provide meaningful involvement in the EIS process. The FAA published its Notice of Availability for the Final EIS on August 31, 2018.

- **Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*:** The FAA and USAF have determined there would be no change in risk to health or safety for children caused by the Proposed Action.

- **Executive Order 11990, *Protection of Wetlands,* and Department of Transportation Order 5660.1A, *Preservation of the Nation's Wetlands*:** The Proposed Action would not result in impacts to wetlands as no wetlands occur within the Detailed Study Area. Accordingly, the FAA and USAF find that the Proposed Action is in compliance with EO 11990 and DOT Order 5660.1A.

- **Executive Order 11988, *Floodplain Management*, and Department of Transportation Order 5650.2, *Floodplain Management and Protection*:** The FAA and USAF have determined that the Proposed Action would not include an encroachment in a floodplain as defined in EO 11988 and DOT Order 5650.2. Therefore, the Proposed Action would not cause a direct impact to the 100-year floodplain and would not constitute a considerable probability of loss of human life or cause future damage to the floodplain that could be substantial in cost or extent.

XIII. DECISION

Approval by the FAA and the USAF to implement the Proposed Action signifies that applicable federal requirements relating to airport development and planning have been met and permits TAA to proceed with the Project. This decision does not constitute a commitment of funds under the Airport Improvement Program (AIP). However, it does fulfill the environmental prerequisites to approve applications for grants and AIP funds for the proposed project in the future.

Decision

We have carefully considered the FAA's and USAF's goals and objectives in relation to the various aeronautical aspects of the Proposed Action at Tucson International Airport as discussed in the Final EIS. We have considered the purpose and need that this project would serve; the alternative means of achieving the purpose and need; the environmental impacts of these alternatives; and the mitigation to preserve and enhance the human, cultural, and natural environment.

Under the authority delegated by the Administrator of the Federal Aviation Administration and the Secretary of the United States Air Force, we find that the Project in the ROD is reasonably supported. We therefore direct that the following Agency Actions and Approvals be taken to carry out this decision, including the following:

Federal Actions by the FAA

1. Unconditional approval of the ALP to depict the proposed improvements pursuant to 49 U.S.C. §§ 40103(b) and 47107(a)(16); 14 C.F.R. Part 77, *Objects Affecting Navigable Airspace*; and 14 C.F.R. Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*.
2. Determination under 49 U.S.C. § 44502(b) that the airport development is reasonably necessary for use in air commerce or in the interests of national defense.

3. Determination under 49 U.S.C. § 47106(a)(1) that the Selected Alternative is Reasonably Consistent with Existing Plans of Public Agencies Responsible for Development in the Area.

4. 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*, [14 C.F.R. Part 139 (49 U.S.C. § 44706)].

5. Approval of construction, installation, relocation of FAA-owned navigational and visual aids including but not limited to the PAPI; Runway End Identifier Lights, taxiway edge lighting, signage and all associated utility lines. The FAA is responsible for the navigational air equipment necessary to ensure the safety of air navigation for aircraft operations at the Airport. The Proposed Action includes relocation of the MALSR, glide slope equipment, PAPI, Runway Visual Range system, and runway end identifier lights on 11L/29R. The relocated 11R/29L would remain a visual approach runway.

6. The Proposed Action would displace the threshold for 11L/29R. This would require the relocation of the MALSR/ILS equipment. Due to the relocation, FAA would test and reissue the instrument flight procedures for the following: ZONNA One (Arrivals and Departures), RNAV (RNP) Y RWY 11L, RNAV (GPS) Z RWY 11L, the VOR or TACAN RWY 11L, the ILS or TACAN RWY11L, RNAV (RNP) Y RWY 29R, RNAV (GPS) Z RWY 29R, LOC BC RWY 29R, and the VOR/DME or TACAN RWY29R.

7. The relocated 11R/29L would require updated approach and departure procedures. Approaches: The relocated 11LR/29L would not have any ILS equipment and would remain a visual approach runway. FAA would test, update, and reissue the arrival and departure procedures charts for the following: RNAV (GPS) RWY 11R and RNAV (GPS) RWY 29L. Departures: The following charts would have to tested, updated, and reissued: Tucson Eight Departure, Burro Four Departure, and WLDKT Three Departure.

8. The FAA would need to identify, test, and issue any potential revised and temporary air traffic control procedures to be used during construction. During construction, various runway closures could introduce additional aircraft overflights to areas around the Airport. Runway 11R/29L (the existing General Aviation Runway) is anticipated to be closed up to 12 months. After the relocation and approval of use of 11R/29L, Runway 11L/29R would be closed for approximately five months to complete the Proposed Action construction. The FAA would need to develop air traffic control and airspace management procedures designed to affect the safe and efficient movement of air traffic to and from the Proposed Action during construction and determine if the proposed temporary procedures are consistent with the Final EIS.

9. Approval of the TAA's request for release of federal obligations on land owned by the Airport Authority for ultimate transfer to the USAF for AFP 44[9].

10. Approval of changes to the airport certification manual pursuant to 14 C.F.R. Part 139.

11. Determinations under 49 U.S.C §§ 47106 and 47107 relating to project grant application approval conditioned on satisfaction of project requirements, and project grant application approval conditioned on assurances about airport operations the proposed project for federal funding assistance under the AIP for the proposed project as shown on the ALP.

12. Determination of eligibility for federal assistance for the near-term development projects under the federal grant-in-aid program authorized by the Airport and Airway Improvement Act of 1982, as amended (49 U.S.C. § 47101 et seq.).

13. Appropriate amendments to air carrier operations specifications pursuant to 49 U.S.C. § 44705.

Approved and Ordered

Date: NOV 28 2018

Tamara A. Swann, Acting Regional Administrator,
Western-Pacific Region, Federal Aviation Administration

RIGHT OF APPEAL

This ROD constitutes a Final Order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. § 46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U.S.C. § 46110.

[9] FAA is clarifying its response to comment P-39 in the Final EIS. FAA clarifies its response to state that TAA may sell Parcel H to the USAF directly or to any federal, state, or local government agencies such as the City of Tucson or Pima County or any other individual or entity that is/are interested in the released land at fair market value for eventual use by the USAF/AANG. FAA and USAF understand local government is supportive of future expansion of AFP -44. FAA and USAF also understand local government supports construction of the NGB's proposed Munitions Storage Area on the eastern portion of Parcel H and may purchase that portion of Parcel H to support the NGB at fair market value. FAA also clarifies that the various property transactions would include construction of replacement fencing to ensure both airport security and AFP 44 security.

Federal Actions by the USAF

14. Approval of disposal of Parcel "F" and associated recorded deed restrictions for AFP 44.
15. Approval of acquisition of Parcel "G" from TAA for use by the USAF at AFP 44.
16. Approval of the ultimate transfer of Parcel "H" from TAA to the USAF, a portion of which would be designated for use by the NGB.
17. Approval of construction of replacement ECMs on AFP 44.
18. Approval of deactivation and subsequent demolition of 12 ECMs (also known as "A" Magazines) located on and adjacent to Parcel "F."
19. Approval of construction of a replacement AFP 44 perimeter fence along the western boundary of Parcel "F."
20. Approval of appropriate agreements between the USAF and NGB for use of land in Parcel "H" for construction of an MSA.
21. Approval of funds for design/construction of an MSA to support the AANG at Tucson Air National Guard Base on Parcel "H."

Approved and Ordered

Alex Briskin

Date: 28 Nov 18

Alex I. Briskin
Chief, Acquisition Environmental & Industrial Facilities Division
Agile Combat Support Directorate
United States Air Force

APPENDIX A
Responses to Comments Received on Final EIS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 27, 2018

David B. Kessler
U.S. Department of Transportation, Federal Aviation Administration
Office of Airports – Western-Pacific Region
15000 Aviation Boulevard, AWP-610.1
Lawndale, CA 90261

Subject: Final Environmental Impact Statement for the Proposed Airfield Safety Enhancement Project, Tucson International Airport, Pima County, Arizona (CEQ #20180202)

Dear Mr. Kessler:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act.

The proposed project includes the relocation of Runway 11R/29L and construction of a center parallel taxiway at the Tucson International Airport, acquisition of land for runway safety areas from Air Force Plant 44 (AFP 44) property, relocation of the earth covered magazines (ECMs) currently on AFP 44 property, and transfer of land to the U.S. Air Force on behalf of the National Guard Bureau for a munitions storage area (MSA) and access road.

EPA reviewed the Draft Environmental Impact Statement (DEIS) for this project and provided comments to the Federal Aviation Administration (FAA) on July 5, 2018. We rated the DEIS as *Environmental Concerns, Insufficient Information* (EC-2) due to concerns about impacts to waters and noise impacts, and had additional recommendations regarding these impacts, air quality, and sustainability. We continue to have the following recommendations for the remainder of the environmental review and project implementation process. A01

Waters of the U.S. and Water Quality

We appreciate the information provided in the Final Environmental Impact Statement (FEIS) regarding coordination with the U.S. Army Corps of Engineers (USACE), estimated impacts to waters, and the need for an individual permit under Section 404 of the Clean Water Act.

Recommendations:

- We continue to recommend that compensatory mitigation to offset unavoidable impacts from the proposed project consider the existing functions of the jurisdictional waters and that FAA consider the Arizona Game and Fish Department and the Tucson Audubon Society In Lieu Fee Programs for potential purchase of mitigation credits. A02
- We continue to recommend the integration of "green infrastructure" into project design where feasible for stormwater management and treatment, and identification of specific design commitments in the Record of Decision (ROD). A03

Air Quality

EPA appreciates the commitments to minimize construction emissions that are included in the FEIS and encourages the implementation of all feasible minimization measures.

Recommendation:

- Commit to the minimization measures for construction emissions discussed in the FEIS, in the ROD. A04

Noise Impacts

EPA continues to support mitigation of all significant noise impacts to residences and continued outreach to impacted residents.

Recommendations:

- Include commitments to mitigation, including offers of sound insulation and acquisition of manufactured/mobile homes, in the ROD. A05
- EPA encourages continued outreach to the impacted residents through the remainder of project planning and development, including methods such as door-to-door interviews, community meetings in community center locations, and translation services. A06

Greenhouse Gas Emissions and Sustainability

EPA continues to encourage commitments to sustainability and greenhouse gas (GHG) emission reduction, including measures such as changes to more fuel-efficient equipment, delay reductions, use of renewable fuels, energy efficiency, and recycling and reusing existing pavement materials.

Recommendations:

- Include commitments to sustainability and GHG emissions reduction in the ROD. EPA recommends also including such commitments in an Airport Sustainability Plan so that measures can be tracked and implemented. EPA encourages Sustainability Plans that cover both GHG emissions reduction activities and other sustainability practices such as water conservation, hazardous materials management, and wildlife habitat preservation. A07
- Utilize as appropriate lessons learned from Airport Sustainability Planning pilots and FAA advisory circulars on sustainability. A08

We appreciate the opportunity to review this FEIS. When the ROD is signed, please send one copy via email to Carolyn Mulvihill of my staff at mulvihill.carolyn@epa.gov. If you have any questions, please contact me at 415-947-4161; dunning.connell@epa.gov, or Carolyn at 415-947-3554.

Sincerely,

Connell Dunning

Connell Dunning, Transportation Team Supervisor
Environmental Review Section

cc: Kevin Grove, U.S. Army Corps of Engineers
Kristin Terpening, Arizona Game and Fish Department
Jonathan Horst, Tucson Audubon Society

2

COMMENT NUMBER	COMMENTER	COMMENT SUMMARY	RESPONSE
		AGENCY	
A01	EPA	EPA reviewed the Draft Environmental Impact Statement (DEIS) for this project and provided comments to the Federal Aviation Administration (FAA) on July 5, 2018. We rated the DEIS as *Environmental Concerns, Insufficient Information* (EC-2) due to concerns about impacts to waters and noise impacts, and had additional recommendations regarding these impacts, air quality, and sustainability. We continue to have the following recommendations for the remainder of the environmental review and project implementation process.	The FAA received EPA's comments on the Draft EIS and provided responses in Appendix K of the Final EIS dated August 2018. The FAA is providing additional responses to the comments received in the September 27, 2018 letter from EPA after the public comment period closed. The FAA notes that the EPA's September 27, 2018 comments are recommendations from the EPA and not requirements to meet federal standards.
A02	EPA	We continue to recommend that compensatory mitigation to offset unavoidable impacts from the proposed project consider the existing functions of the jurisdictional waters and that FAA consider the Arizona Game and Fish Department and the Tucson Audubon Society In Lieu Fee Programs for potential purchase of mitigation credits.	As a condition of approval of this Record of Decision, TAA, as the "applicant" will obtain the required permits. During the permitting process, various mitigation will be reviewed and the appropriate measures approved through coordination with the applicable agencies.

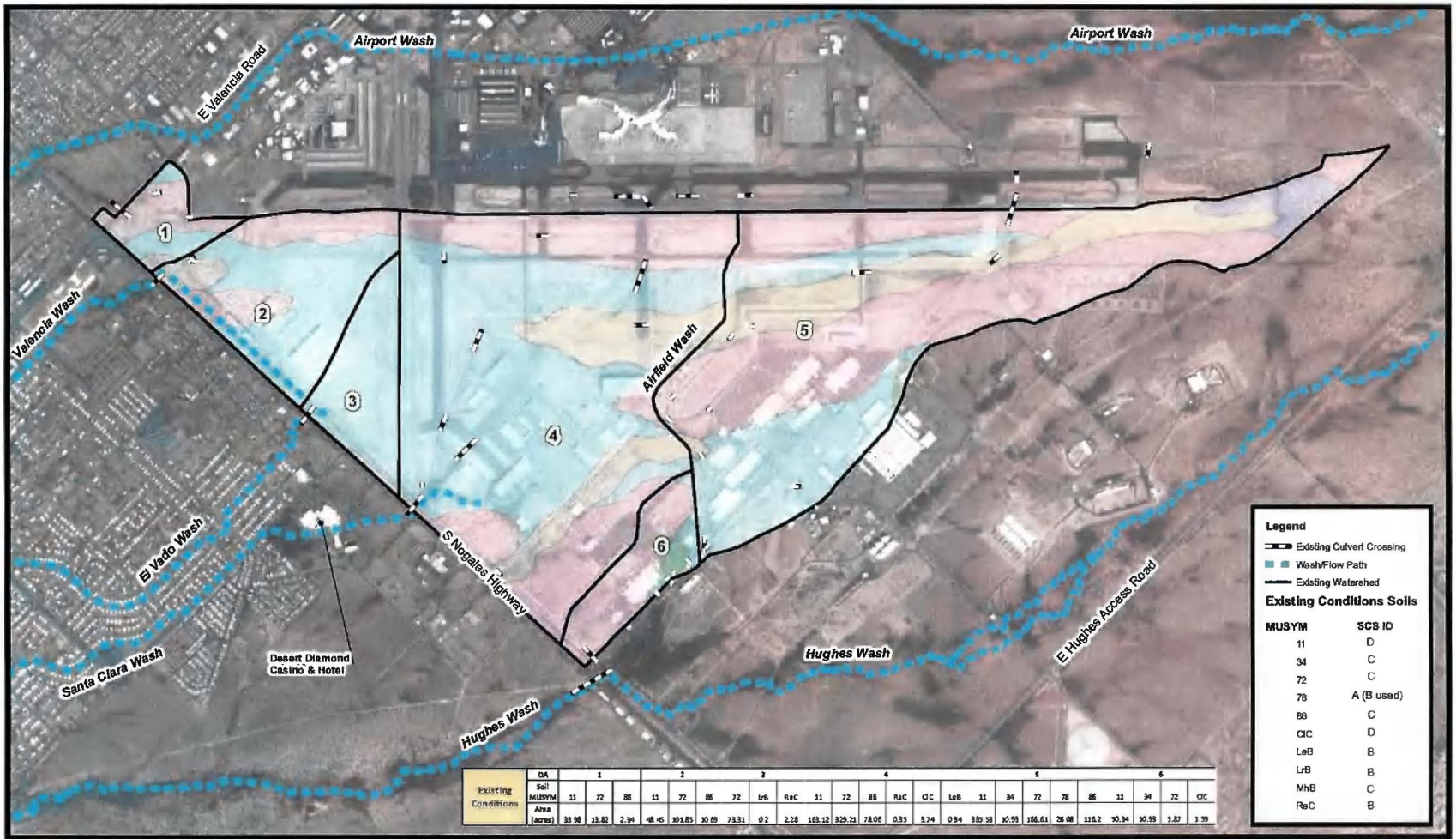
COMMENT NUMBER	COMMENTER	COMMENT SUMMARY	RESPONSE
A03	EPA	We continue to recommend the integration of "green infrastructure" into project design where feasible for stormwater management and treatment, and identification of specific design commitments in the Record of Decision (ROD).	The FAA must ensure that the Proposed Action does not derogate the safety of aircraft and airport operations at TUS. Moreover, it is the policy of the FAA under 49 U.S.C. § 47101(a)(6) that airport development projects provide for the protection and enhancement of natural resources and the quality of the environment of the United States. As a condition of approval of this Record of Decision, TAA will be required to coordinate with the ADEQ to obtain the permits associated with the Proposed Action. FAA will encourage TAA to utilize EPA's website (https://www.epa.gov/green-infrastructure/what-green-infrastructure) to find ways to incorporate green infrastructure to deliver environmental, social, and economic benefits as part of the final design of the stormwater system. Currently, as disclosed in Appendix H of the Final EIS dated August 2018, the stormwater detention system has been designed to accommodate more than is required by the Proposed Action. This mitigation will help control stormwater not just from the Proposed Action but the entire Airport. The result of this additional infrastructure will also be to provide improved stormwater flood control to the surrounding community.

COMMENT NUMBER	COMMENTER	COMMENT SUMMARY	RESPONSE
A04	EPA	Commit to the minimization measures for construction emissions discussed in the FEIS, in the ROD	As a condition of approval of this Record of Decision, TAA will be required to ensure that all possible measures will be taken to reduce fugitive dust emissions by adhering to guidelines included in FAA Advisory Circular (AC), *Standards for Specifying Construction of Airports*. In addition, TAA will be required to follow PCC Title 17 Air Quality Control Section 17.14.040 *Fugitive Dust Activity Permit* and obtain a fugitive dust activity permit for construction of the Proposed Action. See section 4.4.3 of the Final EIS, page 4-18.

COMMENT NUMBER	COMMENTER	COMMENT SUMMARY	RESPONSE
A05	EPA	Include commitments to mitigation, including offers of sound insulation and acquisition of manufactured/ mobile homes, in the ROD.	Of the 78 housing units in the significant noise increase area of the Future (2028) Proposed Action noise contour, eight single-family units and three multi-family units have been previously sound insulated. This leaves 67 dwelling units that are to be mitigated. In order to be eligible for sound insulation, the interior noise levels must be at DNL 45 dB or above. As noted in the Final EIS, for the purposes of mitigating the significant noise increases, the FAA will require the TAA to undertake the following actions: • Offer to sound insulate 27 single-family housing units • Offer to sound insulate four two-family housing units • Offer to sound insulate 17 multi-family housing units • Offer 19 manufactured/mobile housing units acquisition. Since mobile homes cannot be effectively sound insulated because of the nature of the home to be able to be moved from place to place, the owners of the 19 mobile homes within the area of 1.5 dB increase within the DNL 65 dB noise contour for the Future (2028) Proposed Action would be given an offer for acquisition and residents would be offered relocation assistance per the Uniform Relocation Assistance and Real Property Acquisition Act. TAA has effectively relocated other mobile home parks in the past under 14 C.F.R. § Part 150. The FAA will take appropriate steps through federal grant-in-aid assurances and special conditions in a grant agreement to ensure that TAA implements mitigation measures identified in the Final EIS and the ROD as conditions of project approval.

COMMENT NUMBER	COMMENTER	COMMENT SUMMARY	RESPONSE
A06	EPA	EPA encourages continued outreach to the impacted residents through the remainder of project planning and development, including methods such as door-to-door interviews, community meetings in community center locations, and translation services.	TAA, after verifying the number and types of housing units that will be eligible for mitigation, will then coordinate with these impacted residents to implement noise mitigation.
A07	EPA	Include commitments for sustainability and GHG emissions reduction in ROD. EPA recommends also including such commitments in an Airport Sustainability Plan so that measures can be tracked and implemented. EPA encourages Sustainability Plans that cover both GHG emissions reduction activities and other sustainability practices such as water conservation, hazardous materials management, and wildlife habitat preservation.	The FAA has not identified specific factors to consider in making a significance determination for GHG emissions; therefore, no mitigation measures are required to mitigate the potential increase in GHGs attributed to the Proposed Action. In addition, the development of a sustainability plan is not a requirement or mitigation measure of the Proposed Action.
A08	EPA	Utilize as appropriate lessons learned from Airport Sustainability Planning pilots and FAA advisory circulars on sustainability.	The development of a sustainability plan is not a requirement or mitigation measure of the Proposed Action and development of airport sustainability planning is voluntary, albeit encouraged. FAA will encourage TAA to utilize, as appropriate, available FAA resources related to sustainability.

APPENDIX B - Corrected Figures for FEIS Appendix H



Existing Conditions	OA	1			2					3					4					5					6		
	Soil MUSYM	11	72	86	11	72	86	72	LrB	ReC	11	72	86	ReC	CIC	LeB	11	34	72	78	86	11	34	72	CIC
	Area (acres)	33.98	13.82	2.34	48.45	101.85	30.89	73.31	0.2	2.28	163.12	329.23	78.06	0.35	3.74	0.94	335.58	30.93	166.61	26.08	116.2	90.34	30.93	5.87	1.59

Date: 10/11/2018

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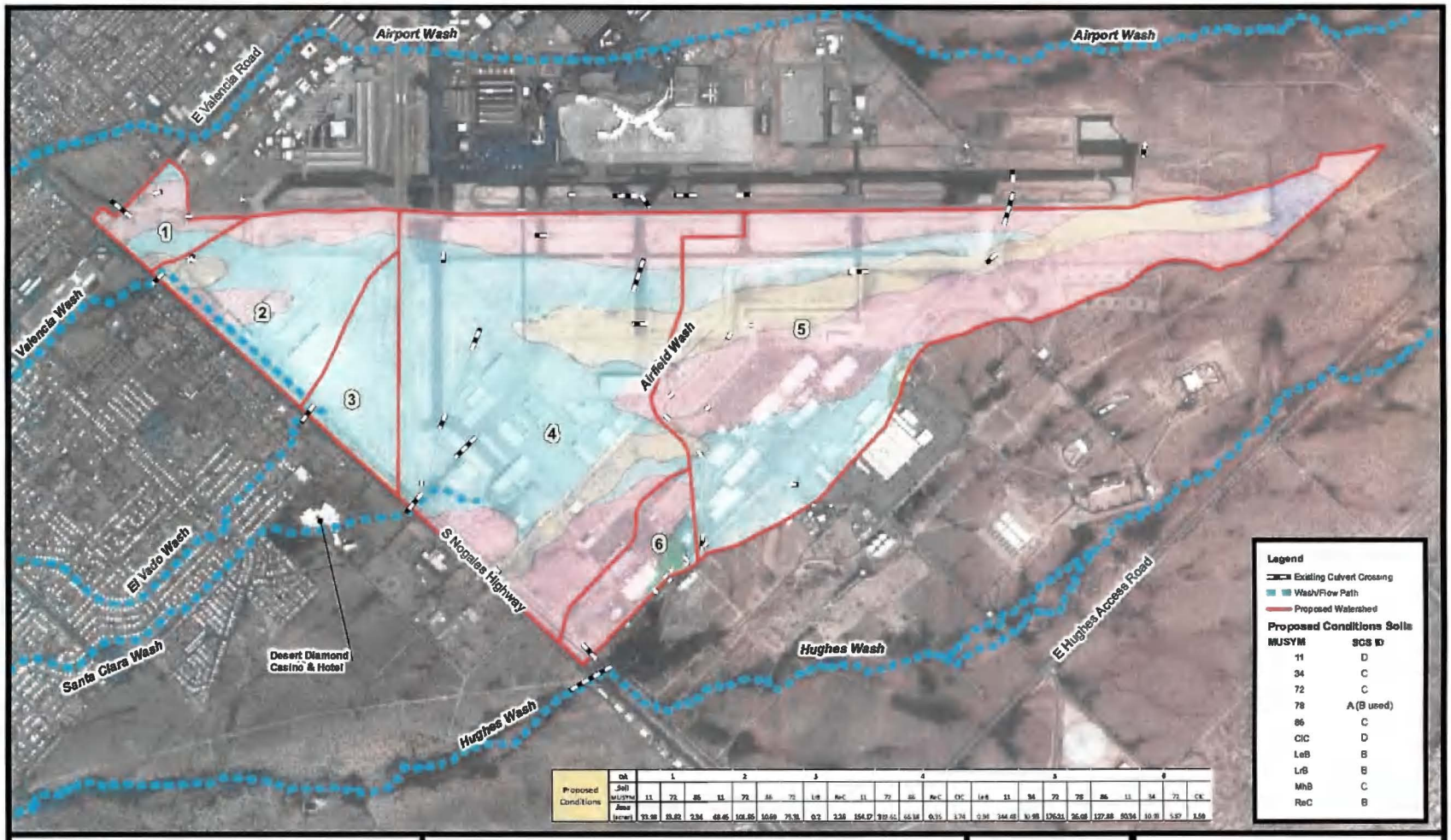
Tucson International Airport
Soils Map - Existing Conditions

Exhibit 1

0 750 1,500 3,000 Feet

Drawn by: R.Halligan



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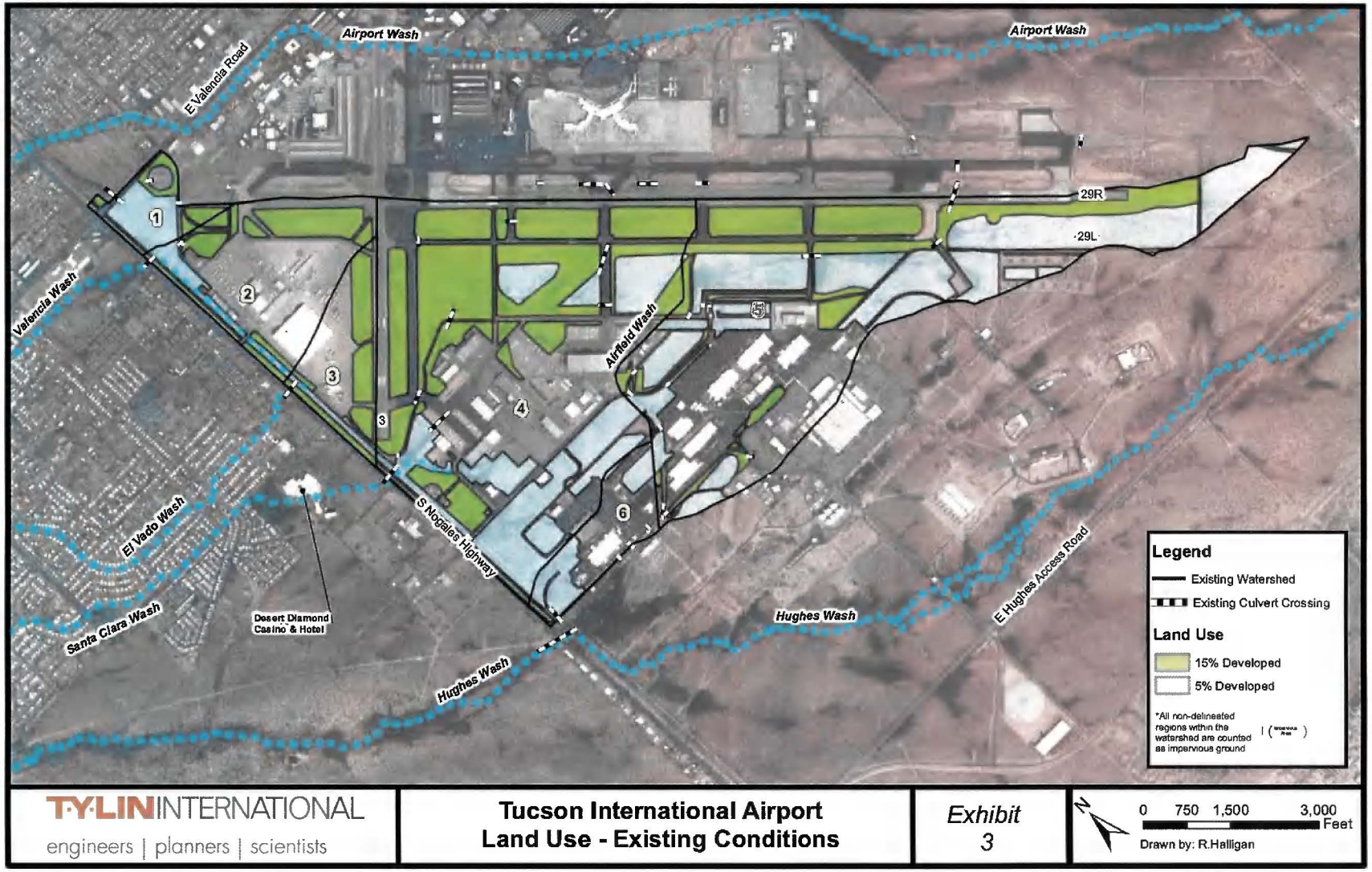
Tucson International Airport
Soils Map - Proposed Conditions

Exhibit
2



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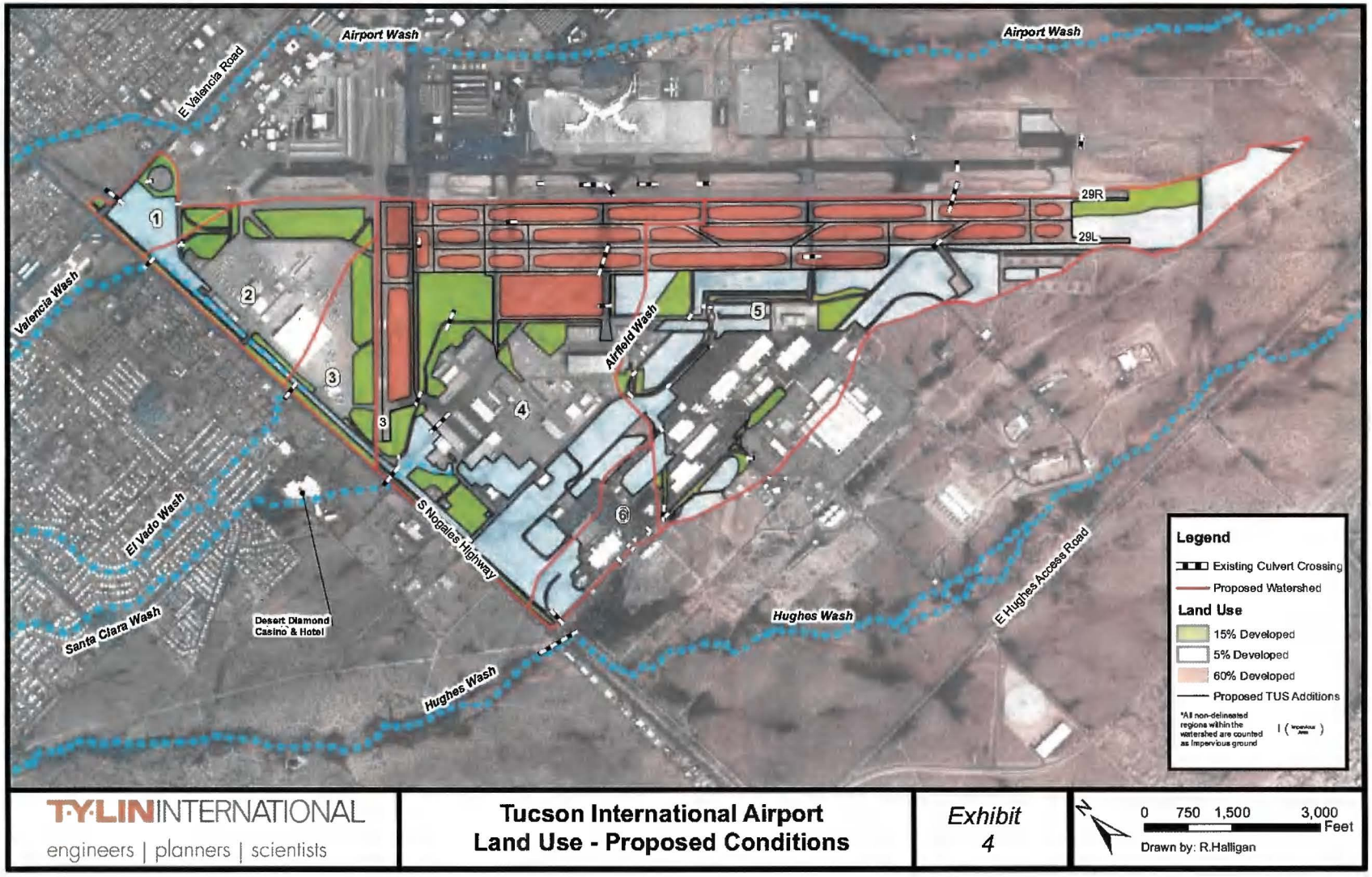
Tucson International Airport
Land Use - Existing Conditions

Exhibit 3

0 750 1,500 3,000 Feet

Drawn by: R.Halligan



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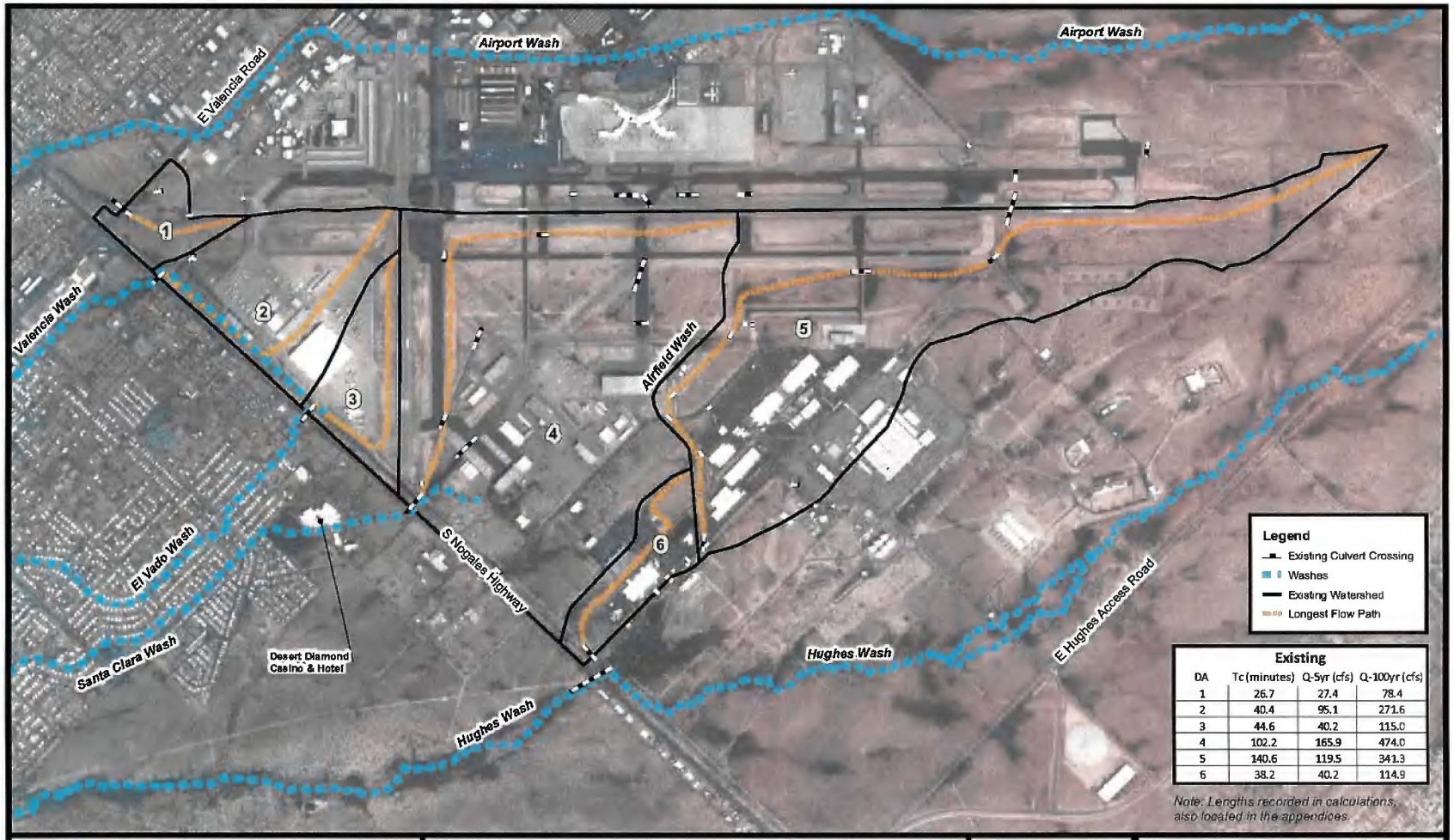
Tucson International Airport
Land Use - Proposed Conditions

Exhibit 4


Airport Wash
Airport Wash
E Valencia Road
Valencia Wash
Airfield Wash
S Nogales Highway
El Vado Wash
Santa Clara Wash
Desert Diamond Casino & Hotel
Hughes Wash
Hughes Wash
E Hughes Access Road
1
2
3
4
5
6
Legend
Existing Culvert Crossing
Washes
Existing Watershed
Longest Flow Path
Existing
DA | Tc (minutes) | Q-5yr (cfs) | Q-100yr (cfs)
1 | 26.7 | 27.4 | 78.4
2 | 40.4 | 95.1 | 271.6
3 | 44.6 | 40.2 | 115.0
4 | 102.2 | 165.9 | 474.0
5 | 140.6 | 119.5 | 341.3
6 | 38.2 | 40.2 | 114.9
Note: Lengths recorded in calculations, also located in the appendices.
Date: 10/11/2018
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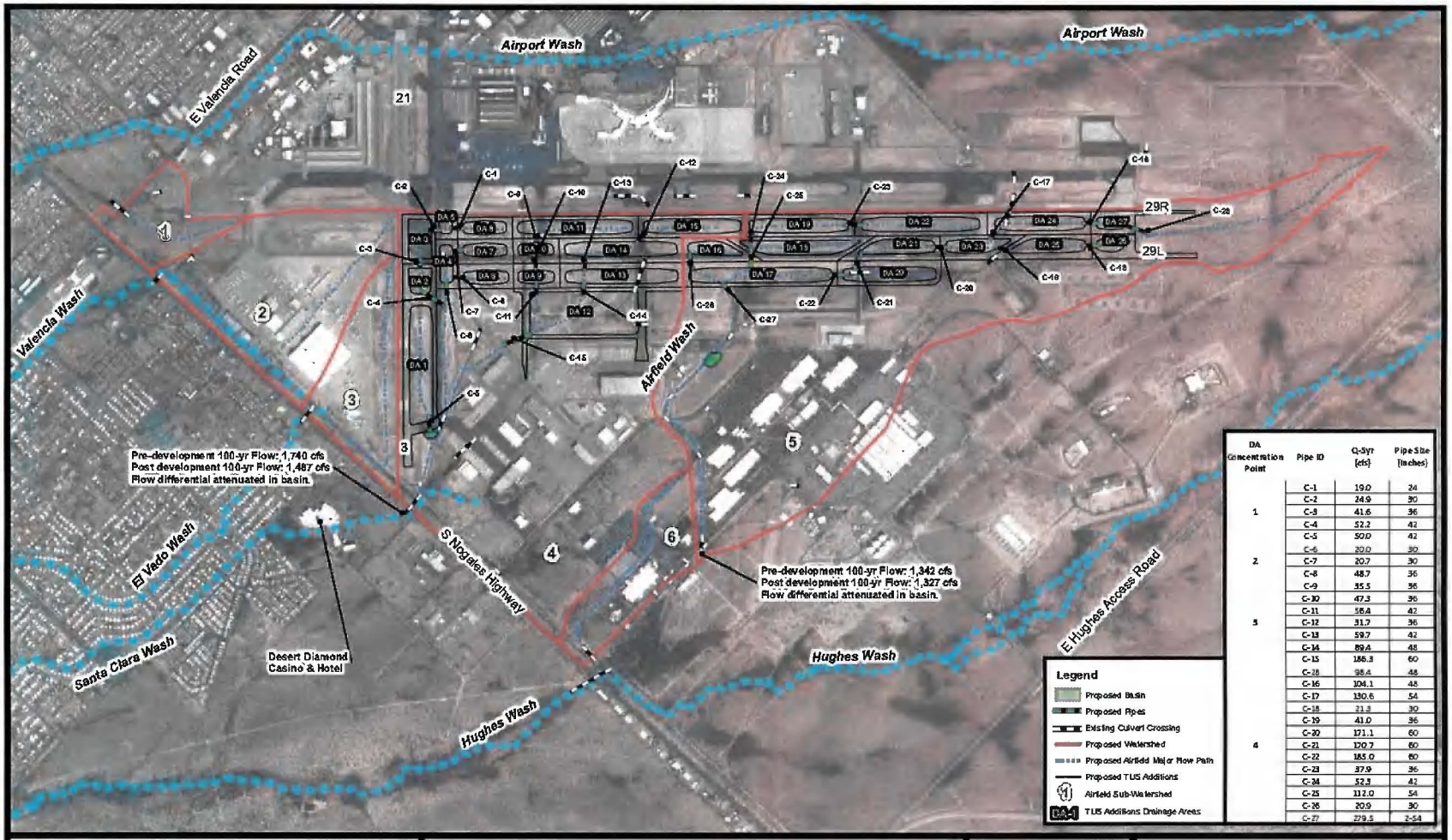
Tucson International Airport
Longest Flow Path - Existing
Exhibit
5
N
0 750 1,500 3,000
Feet
Drawn by: R.Halligan



DA Concentration Point	Pipe ID	Q-5yr (cfs)	Pipe Size (inches)
1	C-1	19.0	24
	C-2	24.9	30
	C-3	41.6	36
	C-4	52.2	42
	C-5	50.0	42
	C-6	20.0	30
2	C-7	20.7	30
	C-8	48.7	36
	C-9	35.5	36
	C-10	47.3	36
	C-11	56.4	42
3	C-12	31.7	36
	C-13	59.7	42
	C-14	89.4	48
	C-15	186.3	60
	C-28	98.4	48
	C-16	104.1	48
	C-17	130.6	54
	C-18	21.3	30
	C-19	41.0	36
	C-20	171.1	60
4	C-21	170.7	60
	C-22	185.0	60
	C-23	37.9	36
	C-24	52.3	42
	C-25	112.0	54
	C-26	20.9	30
	C-27	279.5	2-54

Date: 10/11/2018

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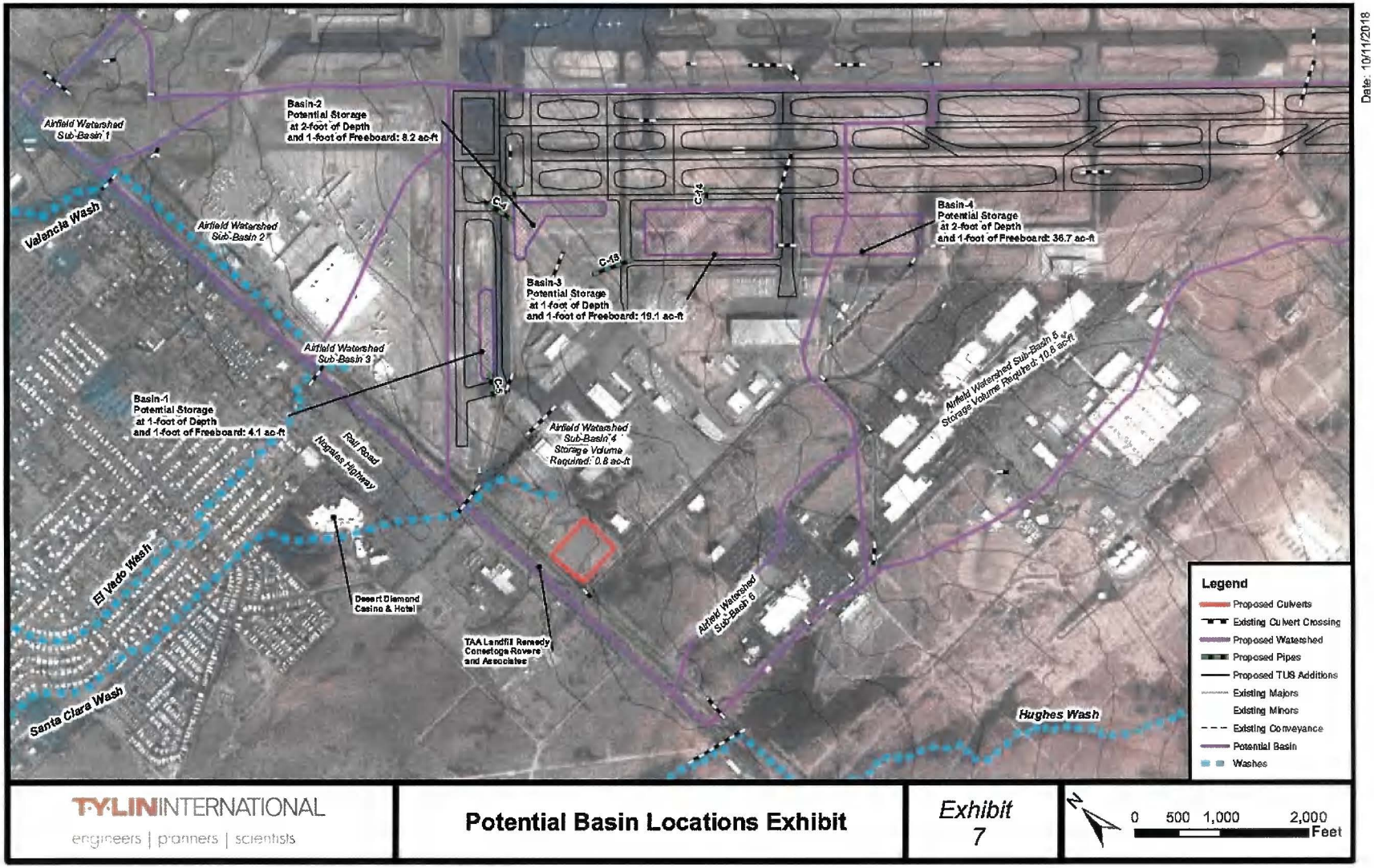
Tucson International Airport
Proposed Conditions - Workmap

Exhibit 6

0 750 1,500 3,000 Feet


Date: 10/11/2018
Airfield Watershed Sub-Basin 1
Basin-2 Potential Storage at 2-foot of Depth and 1-foot of Freeboard: 8.2 ac-ft
Valencia Wash
Airfield Watershed Sub-Basin 2
C-1
C-14
C-13
Basin-4 Potential Storage at 2-foot of Depth and 1-foot of Freeboard: 36.7 ac-ft
Basin-3 Potential Storage at 1-foot of Depth and 1-foot of Freeboard: 19.1 ac-ft
Airfield Watershed Sub-Basin 3
C-5
Basin-1 Potential Storage at 1-foot of Depth and 1-foot of Freeboard: 4.1 ac-ft
Rail Road
Nogales Highway
Airfield Watershed Sub-Basin 4 Storage Volume Required: 0.8 ac-ft
Airfield Watershed Sub-Basin 5 Storage Volume Required: 10.8 ac-ft
El Vado Wash
Desert Diamond Casino & Hotel
TAA Landfill Remedy Conestoga Rovers and Associates
Airfield Watershed Sub-Basin 6
Santa Clara Wash
Hughes Wash
Legend
Proposed Culverts
Existing Culvert Crossing
Proposed Watershed
Proposed Pipes
Proposed TUS Additions
Existing Majors
Existing Minors
Existing Conveyance
Potential Basin
Washes
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Potential Basin Locations Exhibit
Exhibit 7
N
0 500 1,000 2,000 Feet

Appendix C – Location of Where this ROD can be inspected.

Dusenberry-River Library
5605 East River Road, Suite 105
Tucson, AZ 85750
Eckstrom-Columbus Library
4350 East 22nd Street
Tucson, AZ 85711
El Pueblo Library
101 West Irvington Road
Tucson, AZ 85706
El Rio Library
1390 W Speedway Blvd
Tucson, AZ 85745
Himmel Park Library
1035 North Treat Avenue
Tucson, AZ 85716
Joel D. Valdez Main Library
101 North Stone Avenue
Tucson, AZ 85701
Martha Cooper Library
1377 North Catalina Avenue
Tucson, AZ 85712

Mission Public Library
3770 South Mission Road
Tucson, AZ 85713
Murphy-Wilmot Library
530 North Wilmot Road
Tucson, AZ 85711
Quincie Douglas Library
1585 East 36th Street
Tucson, AZ 85713
Santa Rosa Library
1075 S 10th Ave
Tucson, AZ 85701
University of Arizona Main Library
1510 East University Boulevard
Tucson, AZ 85721
Valencia Library
202 West Valencia Road
Tucson, AZ 85706
Woods Memorial Library
3455 North 1st Avenue
Tucson, AZ 85719

Federal Aviation Administration,
Western-Pacific Region
777 South Aviation Boulevard
Office of Airports, Suite 150
El Segundo, California 90245

Tucson Airport Authority
7250 South Tucson Boulevard
Suite 300
Tucson, AZ 85756

Federal Aviation Administration
Western-Pacific Region, Airports Division
Phoenix Airports District Office
3800 N Central Avenue
Suite 1025, 10th Floor
Phoenix, AZ 85012