



Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation

Appendix F, Supporting Documentation for Preliminary Section 4(f) Evaluation

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**Applicability of Identified Wildlife Areas as
Section 4(f) Properties for the I-11 Tier 1 EIS**



MEMORANDUM

TO: Aryan Lirange (FHWA), Rebecca Yedlin (FHWA)

FROM: Katie Rodriguez (ADOT), Jay Van Echo (ADOT)

DATE: October 31, 2018

RE: Applicability of Identified Wildlife Areas as Section 4(f) Properties for the I-11 Tier 1 EIS

During the I-11 Administrative Tier 1 DEIS Review, questions regarding the applicability of various wildlife parcels within the I-11 study area as Section 4(f) properties were discussed. ADOT was asked to review the applicability of these parcels under the Section 4(f) policy and provide recommendations to FHWA for their consideration based on available information. As a result of ADOT's review of the available documentation, ADOT has the following recommendations for FHWA:

- The following properties should be retained at this time as Section 4(f) wildlife refuges properties based on the following information available at this time:
 - **Arlington State Wildlife Area, Robbins Butte Wildlife Area, and Powers Butte Wildlife Area:**

These parcels and identified associated areas are owned and/or managed by the Arizona Game and Fish Department (AZGFD). According to the publicly available information and scoping information that the I-11 study team has at this time, the management objectives for these wildlife areas stated by AZGFD include “maintaining habitat, nesting areas, and food crops for waterfowl, doves, endangered species such as Yuma clapper rails and the Western yellow-billed cuckoo, special status species, and other wildlife.” The secondary management emphasis for these properties is to provide compatible hunting, wildlife viewing, and other wildlife oriented recreational opportunities. In previous correspondence with AZGFD for the I-11 Tier 1 EIS agency and public scoping period, it was noted by AZGFD that “the various wildlife areas represent significant conservation values to the local community.” Because the available information at this time suggests that the wildlife area serves a primary purpose for conservation and management of wildlife resources, is regarded significant for its conservation values by AZGFD, is publicly owned, and is open to the public, ADOT’s recommendation at this time is that FHWA recognize these properties as a Section 4(f) resources.
- The following properties should not be considered Section 4(f) properties based on the following information available at this time:
 - **Santa Rita Experimental Range and Wildlife Area** – This parcel is owned and managed by the University of Arizona (School of Agriculture). According to the available information that the study team has at this time, the primary purpose of this property is for research regarding livestock production on native rangeland to “further the restoration, protection, and

management of rangelands in the arid southwest.” Because the primary purpose of the property is for research purposes and not associated with a significant and primary recreational, historical, or wildlife refuge purpose, ADOT’s recommendation at this time is that FHWA should not recognize this property as a Section 4(f) resource.



Section 4(f) Constructive Use White Paper



White Paper Regarding Potential Section 4(f) Constructive Use Impacts

**Ironwood Forest National Monument, Tucson Mitigation Corridor, Saguaro National Park,
and Tucson Mountain Park**

11/17/2018

Purpose of White Paper

The purpose of this paper is to respond to a specific comment from the Bureau of Reclamation on the I-11 project. The Bureau of Reclamation (Reclamation) reviewed and commented on the Interstate 11 (I-11) Tier 1 Administrative Draft Environmental Impact Statement (ADEIS) dated July 2018. Reclamation's comment number 17 references four properties and requests analysis on potential Section 4(f) constructive use for some of the properties. 23 CFR 774.15 (c) states that "The Administration shall determine when there is a constructive use, but the Administration is not required to document each determination that a project would not result in a constructive use of a nearby Section 4(f) property. However, such documentation may be prepared at the discretion of the Administration."

FHWA is evaluating Section 4(f) applicability and constructive use for the four properties mentioned in Reclamation's comment. FHWA is not proposing to make constructive use determinations on any other Section 4(f) properties in the I-11 study area at this time. The four properties are:

1. Ironwood Forest National Monument
2. Tucson Mitigation Corridor
3. Saguaro National Park
4. Tucson Mountain Park

Regulatory Context and Practice

The regulations of Section 4(f) define a constructive use as occurring when a transportation project "does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired" (23 Code of Federal Regulations [CFR] 774.15(a)).

Key criteria in this definition are:

- There can be no incorporation of land and also have a constructive use; and
- The proximity impacts are so severe to cause substantial impairment of the protected activities, features or attributes.

While 23 CFR 774 provides for a constructive use finding, the application of a constructive use finding is an extremely rare occurrence in practice. The subjectivity of the regulatory language can make proving or denying the case for a constructive use difficult.



23 CFR 774.15 (d) states “When a constructive use determination is made, it will be based upon the following:

- (1) Identification of the current activities, features, or attributes of the property which qualify for protection under Section 4(f) and which may be sensitive to proximity impacts;
- (2) An analysis of the proximity impacts of the proposed project on the Section 4(f) property. If any of the proximity impacts will be mitigated, only the net impact need be considered in this analysis. The analysis should also describe and consider the impacts which could reasonably be expected if the proposed project were not implemented, since such impacts should not be attributed to the proposed project; and
- (3) Consultation, on the foregoing identification and analysis, with the official(s) with jurisdiction over the Section 4(f) property.”

Applicability of Section 4(f) to Properties

Ironwood Forest National Monument

The Ironwood Forest National Monument is not protected by Section 4(f). While publicly owned by the Bureau of Land Management (BLM), the property does not function as, or is not designated within its management plan as, “a significant park, recreation area, or wildlife and waterfowl refuge” as defined in 23 CFR 774.11(g).

The BLM website states that the monument is comprised of:

- 128,400 acres of public land administered by the BLM,
- 54,700 acres of land administered by the Arizona State Land Department, and
- approximately 6,000 acres of privately owned land.

Private land in a park, recreations area, or wildlife/waterfowl refuge is not protected by Section 4(f) and the Arizona State Land Department has no official publicly-adopted designation for the land within the monument.

The February 2013 Resource Management Plan for the BLM land states that:

“The Ironwood Forest National Monument was designated to protect objects of scientific interest within the Monument, including the drought-adapted vegetation of the Sonoran Desert, geological resources such as Ragged Top Mountain, and abundant archaeological resources. The purpose of the IFNM is to preserve, protect, and manage the biological, cultural and geological resources, and other objects of this area for future generations, and to further our knowledge and understanding of these resources through scientific research and interpretation.”

Tucson Mitigation Corridor

The Tucson Mitigation Corridor is owned and managed by Reclamation in cooperation with the United States Fish and Wildlife Service, Arizona Game and Fish Department and Pima County



for the purpose of restoring and conserving wildlife populations and movements across the Avra valley between other protected lands. The Tucson Mitigation Corridor land was acquired and designated for this purpose as a mitigation commitment and, therefore, achieves the Section 4(f) definition as a significant wildlife refuge property.

Saguaro National Park

The National Park Service (NPS) owns and manages Saguaro National Park, property that is significant for historic and natural resource preservation and public recreation. Specifically, the NPS's mission is to "preserve unimpaired the natural and cultural resources and values of the NPS for the enjoyment, education and inspiration of current and future generations of people." On the webpage for Saguaro National Park, the general mission statement is repeated.

As such, Saguaro National Park is protected by Section 4(f) as a park and a recreation resource.

Tucson Mountain Park

Pima County Natural Resources, Parks and Recreation Department owns and manages Tucson Mountain Park to conserve the resources on the property and to provide for public recreation. Their website identifies human-related activities and features for Tucson Mountain Park, such as picnicking, hiking, wildlife viewing, and hunting. The May 2018 Management Plan states that one of the management objectives is to:

provide the public with developed facilities that accommodate a range of uses and activities that are appropriate for the park's natural resource setting, that are safe, and that can be conducted without the degradation of the park's biological, cultural, visual, or physical resources.

As such, Tucson Mountain Park is protected by Section 4(f) as a park and a recreation resource.

Applicability of Section 4(f) Constructive Use

Based on the foregoing descriptions of Section 4(f) applicability, three of the four properties are protected by Section 4(f): Tucson Mitigation Corridor, Saguaro National Park and Tucson Mountain Park. To determine if constructive use can apply to each property, the conditions under which a constructive use may be considered were applied:

- There can be no incorporation of land and also have a constructive use; and
- The proximity impacts are so severe to cause substantial impairment of the protected activities, features or attributes

In considering the applicability of the first bullet, the Purple (C) and Green (D) Build Corridor Alternatives, each with the Central Arizona Project (CAP) Design Option, have the potential to incorporate land from the Tucson Mitigation Corridor as described in Chapter 4 of the DEIS. Since constructive use cannot be applied to a property where incorporation of land would occur, constructive use cannot be considered for the Tucson Mitigation Corridor.



The Orange Build Corridor Alternative (B) is east of the three protected properties described above and would be co-located with existing I-10. Because the Orange Build Corridor Alternative falls within the urban Tucson area on an existing interstate, it was not evaluated for proximity impacts or constructive use related to Saguaro National Park and Tucson Mountain Park. None of the Build Corridor Alternatives would incorporate land from Saguaro National Park or Tucson Mountain Park; however, the Purple Build Corridor Alternative with CAP Design Option and the and Green Build Corridor Alternative with CAP Design Option would both be close to these parks.

Therefore, this white paper evaluates the Purple and Green Build Corridor Alternatives, each with the CAP Design Option, for potential constructive use of Saguaro National Park and Tucson Mountain Park. **Table 1** summarizes the findings of this initial test of constructive use applicability. The test of proximity impacts is described later in this white paper.

Table 1: Applicability of Constructive Use

Property Name	Protected by Section 4(f)?	Incorporation of Land?	Potential Constructive Use Candidate?
Ironwood Forest National Monument	No	No	No
Tucson Mitigation Corridor	Yes	Yes	No
Saguaro National Park	Yes	No	Yes
Tucson Mountain Park	Yes	No	Yes

Regulatory Context for Constructive Use

An evaluation of the potential for the Build Corridor Alternatives to cause a constructive use of the Saguaro National Park and the Tucson Mountain Park was undertaken according to the requirements of 23 CFR 774.15.

“(a) A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.”

Substantial impairment is a high threshold; an impact does not rise to the level of being so severe unless specific criteria are achieved. The Federal Highway Administration (FHWA) has determined that a constructive use occurs when (23 CFR 774.15(e)):

“(1) *The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as:*



- (i) Hearing the performances at an outdoor amphitheater;*
 - (ii) Sleeping in the sleeping area of a campground;*
 - (iii) Enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance;*
 - (iv) Enjoyment of an urban park where serenity and quiet are significant attributes; or*
 - (v) Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing.*
- (2) The proximity of the proposed project substantially impairs esthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property. Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting;*
- (3) The project results in a restriction of access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site;*
- (4) The vibration impact from construction or operation of the project substantially impairs the use of a Section 4(f) property, such as projected vibration levels that are great enough to physically damage a historic building or substantially diminish the utility of the building, unless the damage is repaired and fully restored consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, i.e., the integrity of the contributing features must be returned to a condition which is substantially similar to that which existed prior to the project;*
- (5) The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife and waterfowl refuge adjacent to the project, substantially interferes with the access to a wildlife and waterfowl refuge when such access is necessary for established wildlife migration or critical life cycle processes, or substantially reduces the wildlife use of a wildlife and waterfowl refuge."*

FHWA has determined that a constructive use does not occur when (23 CFR 774.15(f)):

- "(1) Compliance with the requirements of 36 CFR 800.5 for proximity impacts of the proposed action, on a site listed on or eligible for the National Register, results in an agreement of 'no historic properties affected' or 'no adverse effect;'*
- (2) The impact of projected traffic noise levels of the proposed highway project on a noise-sensitive activity do not exceed the FHWA noise abatement criteria as contained in Table 1 in part 772 of this chapter, or the projected operational noise levels of the proposed transit project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment;*



- (3) The projected noise levels exceed the relevant threshold in paragraph (f)(2) of this section because of high existing noise, but the increase in the projected noise levels if the proposed project is constructed, when compared with the projected noise levels if the project is not built, is barely perceptible (3 dBA or less);*
- (4) There are proximity impacts to a Section 4(f) property, but a governmental agency's right-of-way acquisition or adoption of project location, or the Administration's approval of a final environmental document, established the location for the proposed transportation project before the designation, establishment, or change in the significance of the property. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section;*
- (5) Overall (combined) proximity impacts caused by a proposed project do not substantially impair the activities, features, or attributes that qualify a property for protection under Section 4(f);*
- (6) Proximity impacts will be mitigated to a condition equivalent to, or better than, that which would occur if the project were not built, as determined after consultation with the official(s) with jurisdiction;*
- (7) Change in accessibility will not substantially diminish the utilization of the Section 4(f) property;*
- (8) Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause a substantial impairment of protected activities, features, or attributes of the Section 4(f) property."*

Assessment of Constructive Use for Saguaro National Park

Noise

A constructive use occurs when:

- "(1) The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as:*
 - (i) Hearing the performances at an outdoor amphitheater;*
 - (ii) Sleeping in the sleeping area of a campground;*
 - (iii) Enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance;*
 - (iv) Enjoyment of an urban park where serenity and quiet are significant attributes; or*
 - (v) Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing."*



A constructive use does not occur when:

“The impact of projected traffic noise levels of the proposed highway project on a noise-sensitive activity do not exceed the FHWA noise abatement criteria as contained in Table 1 in part 772 of this chapter, or the projected operational noise levels of the proposed transit project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment.”

Table 1 to Part 772—Noise Abatement Criteria

[Hourly A-Weighted Sound Level_decibels (dB(A))¹]

Activity category	Activity Leq(h)	Criteria ² L10(h)	Evaluation location	Activity description
A	57	60	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B ³	67	70	Exterior	Residential.
C ³	67	70	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	55	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E ³	72	75	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F				Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G				Undeveloped lands that are not permitted.

¹ Either Leq(h) or L10(h) (but not both) may be used on a project.

² The Leq(h) and L10(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.

³ Includes undeveloped lands permitted for this activity category.

Noise levels at specific distances from the Build Corridor Alternatives and at parks and recreation areas were predicted using the FHWA's Traffic Noise Model 2.5 noise model. The methodology for this Tier 1 serves as a screening-level tool to assess potential for Project noise impacts. Model inputs included traffic volumes and source-receiver distances. The modeling results were then compared to the applicable FHWA Noise Abatement Criterion in Table 1. The



Criterion applicable to Saguaro National Park is Category C. The results of the noise analysis, shown in Table 2, indicate that noise levels from the Purple and Green Build Corridor Alternatives, each with the CAP Design Option, would not exceed FHWA's Noise Abatement Criterion C. Therefore, no constructive use would occur due to noise.

During Tier 2 studies, a more detailed noise analysis will be undertaken by ADOT that examines a specific roadway alignment and considers additional factors such as terrain. The topography in the vicinity of Saguaro National Park is mountainous and would likely affect sound attenuation across these distances.

In addition, ADOT and FHWA acknowledge NPS's concern regarding the potential for noise impacts to extend beyond 1,000 feet from corridor into Saguaro National Park. At the Tier 1 screening level analysis, Project noise impacts (as defined by FHWA) were not predicted at distances greater than 1,000 feet from the I-11 right-of-way. However, during Tier 2, ADOT and FHWA will continue coordination with the National Park Service to explore use of supplemental noise metrics during the detailed noise analysis.

Table 2: Modeled Noise Levels for Purple or Green Build Corridor Alternatives (including CAP Design Option)

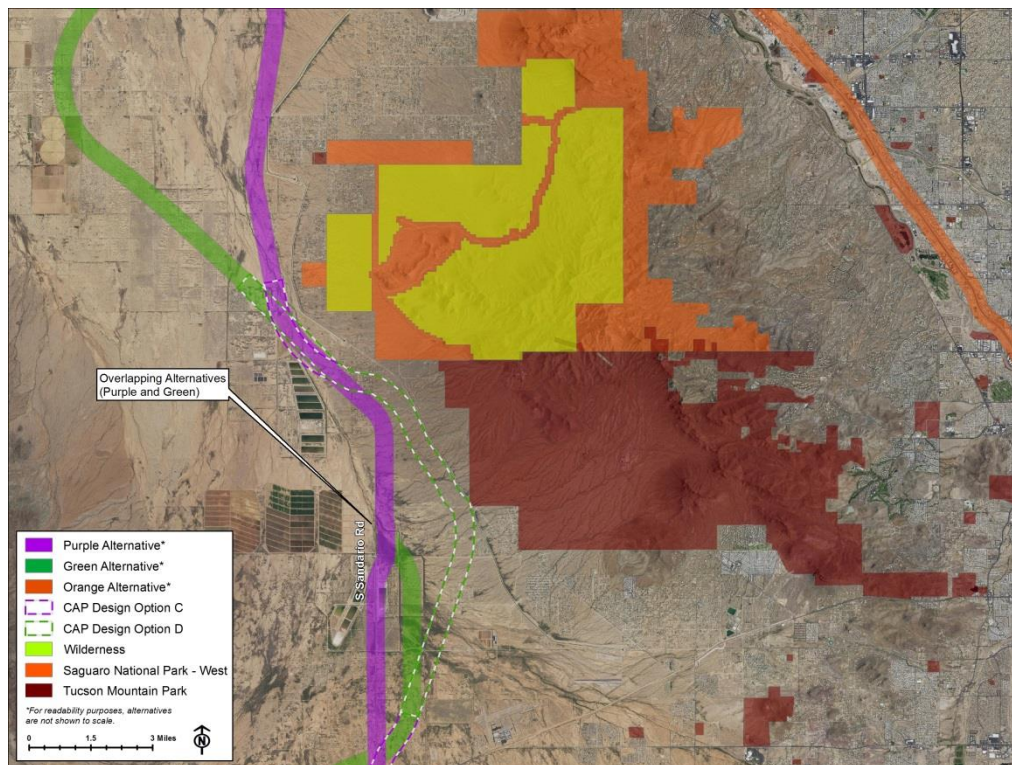
Distance from Edge of Roadway Right of Way	Predicted Noise Level (decibels (dBA))
50 feet	67 dBA
100 feet	65 dBA
250 feet	61 dBA
500 feet	57 dBA
1,000 feet	51 dBA

At the closest point, the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would be over 1,500 feet from Saguaro National Park (shown in blue in Figure 1 [Saguaro National Park, Tucson Mountain Park, and Wilderness with the Purple or Green Build Corridor Alternatives, each with the CAP Design Option]). Based on the results of the modeling, noise levels at the park would be less than 51 dBA. Although the Project may increase noise levels over existing conditions, the predicted noise levels would not exceed the 67 dBA noise abatement criteria threshold for Category C. Additional information on the noise assessment and modeling methodology is included in DEIS Chapter 3 and the *I-11 Traffic Noise Technical Report*.

The Category for which wilderness would qualify was not evaluated. However, even if the wilderness with Saguaro National Park fell under Category A, the predicted noise levels would not exceed the threshold (57 dBA). Wilderness is shown on Figure 1.

Additionally, the 1,600-foot distance between the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, and Saguaro National Park represents the worst case scenario. During Tier 2 studies, a specific 400 foot wide alignment would be chosen within the 2,000-foot wide Build Corridor. If the selected alignment falls on the west side of the corridor, the edge of right of way could be over 3,000 feet from the western boundary of the Saguaro National Park.

Figure 1: Saguaro National Park, Tucson Mountain Park, and Wilderness with the Purple or Green Build Corridor Alternatives (each with the CAP Design Option)



Esthetic Features

A constructive use occurs when:

“(2) The proximity of the proposed project substantially impairs esthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property. Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting;”

The esthetic features of Saguaro National Park are the viewsheds of and from the park as well as the night sky views within the park. The potential for the Project to impact each of these features is described below.



Viewshed: The existing viewshed from the park where the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would be located includes existing residential developments, farms, the CAP canal structures, and the Central Area Valley Storage and Recovery Project and Southern Area Valley Storage and Recovery Project recharge basins. Each Build Corridor Alternative would be a new element in the middle ground of this viewshed from the park. In the context of the other manmade elements in the viewshed, the visual change caused by a Build Corridor Alternative would not be so severe as to substantially impair or diminish the public park, natural and preservation attributes that qualify Saguaro National Park for protection by Section 4(f).

Night Skies: FHWA and Arizona Department of Transportation (ADOT) have committed to mitigate impacts on night skies by complying with dark skies ordinances and by limiting lighting to be consistent with land use and development patterns at the time of Project implementation.

Mitigation: The DEIS identifies general mitigation strategies as part of the Project that will help FHWA and ADOT avoid, minimize or compensate for adverse visual impacts at viewpoints from the park. These strategies involve landscape planning in visually sensitive areas, grading designs for more natural looking slopes, surfaces and transitions, blending of stormwater managements structures with the existing landscape, enhancement of highly visible features such as noise barriers and other hardscape elements, lighting design strategies, and other considerations (ADEIS Section 3.9.5). Tier 2 analysis will include further visual impact assessment and coordination with the NPS regarding the potential visual impacts to Saguaro National Park.

Conclusion: The foregoing esthetic effects assessment indicates that the proximity of the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would not substantially impair the esthetic features or attributes of Saguaro National Park. The Project would not substantially detract from the setting of the park.

Restriction of Access

A constructive use occurs when:

“(3) The project results in a restriction of access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site;”

A constructive use does not occur when:

“(7) Change in accessibility will not substantially diminish the utilization of the Section 4(f) property;”

The Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would not restrict access to Saguaro National Park and, therefore, would not substantially diminish the utility of the park. Existing roads and routes across the Build Corridors would either be retained or adjustments made to maintain access. No restriction of access would occur and no change in accessibility would occur that would substantially diminish the utilization of the park.



Vibration

A constructive use occurs when:

“(4) The vibration impact from construction or operation of the project substantially impairs the use of a Section 4(f) property, such as projected vibration levels that are great enough to physically damage a historic building or substantially diminish the utility of the building, unless the damage is repaired and fully restored consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, i.e., the integrity of the contributing features must be returned to a condition which is substantially similar to that which existed prior to the project;”

A constructive use does not occur when:

“(8) Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause a substantial impairment of protected activities, features, or attributes of the Section 4(f) property.”

Ground vibration during construction of the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, was not quantitatively evaluated as part of the Tier 1 analysis. As described in DEIS Section 3.15.7, the potential for construction activities to cause vibration impacts will be assessed during Tier 2. At that time and if Project impacts are indicated for Saguaro National Park, specific mitigation strategies will be developed for the Project in coordination with the NPS to reduce or eliminate impacts.

Ecological Intrusion

A constructive use occurs when:

“(5) The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife and waterfowl refuge adjacent to the project, substantially interferes with the access to a wildlife and waterfowl refuge when such access is necessary for established wildlife migration or critical life cycle processes, or substantially reduces the wildlife use of a wildlife and waterfowl refuge.”

Saguaro National Park is managed as the public park and for natural resource preservation; it is not a wildlife or waterfowl refuge. For this reason, this criterion does not apply to Saguaro National Park.

Historic Sites

A constructive use does not occur when:

“(1) Compliance with the requirements of 36 CFR 800.5 for proximity impacts of the proposed action, on a site listed on or eligible for the National Register, results in an agreement of ‘no historic properties affected’ or ‘no adverse effect;”

Saguaro National Park is not an historic site; therefore, this criterion does not apply.



Transportation Right of Way

A constructive use does not occur when:

“(4) There are proximity impacts to a Section 4(f) property, but a governmental agency's right-of-way acquisition or adoption of project location, or the Administration's approval of a final environmental document, established the location for the proposed transportation project before the designation, establishment, or change in the significance of the property. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section;”

This criterion does not apply to Saguaro National Park because the Project does not involve a location for the proposed transportation project that was established before the designation, establishment, or change in the significance of the park.

Combined Proximity Impacts

A constructive use does not occur when:

“(5) Overall (combined) proximity impacts caused by a proposed project do not substantially impair the activities, features, or attributes that qualify a property for protection under Section 4(f);”

This constructive use assessment finds that combined proximity impacts to Saguaro National Park, after mitigation, would not substantially impair the activities, features or attributes that qualify the park for protection by Section 4(f).

Mitigation

A constructive use does not occur when:

“(6) Proximity impacts will be mitigated to a condition equivalent to, or better than, that which would occur if the project were not built, as determined after consultation with the official(s) with jurisdiction;”

ADOT is committed to mitigating for impacts to natural areas and parks. However, this mitigation is unlikely to result in a condition equivalent to or better than that which would occur if the project were not built.



Assessment of Constructive Use for Tucson Mountain Park

Noise

A constructive use occurs when:

“(1) The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as:

(i) Hearing the performances at an outdoor amphitheater;

(ii) Sleeping in the sleeping area of a campground;

(iii) Enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance;

(iv) Enjoyment of an urban park where serenity and quiet are significant attributes; or

(v) Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing.”

A constructive use does not occur when:

“The impact of projected traffic noise levels of the proposed highway project on a noise-sensitive activity do not exceed the FHWA noise abatement criteria as contained in Table 1 in part 772 of this chapter, or the projected operational noise levels of the proposed transit project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment.”

The noise screening methodology described in the discussion of Saguaro National Park (earlier in this white paper) is the same methodology used in the evaluation of potential for noise impacts at Tucson Mountain Park. Noise levels from the Purple and Green Build Corridor Alternatives, each with the CAP Design Option, are not expected to exceed FHWA's Noise Abatement Criterion in Table 1 and, therefore, no constructive use would occur due to noise. As a public park, Tucson Mountain Park is categorized as a park in Category C in Table 1 above. Specifically, the FHWA Noise Abatement Criteria (NAC) for Land Use applies Category C (67 dBA) to parks, recreation areas, and Section 4(f) properties. Predicted noise levels are shown in Table 1 above and additional information on the noise assessment and modeling methodology is included in DEIS Chapter 3 and the *I-11 Traffic Noise Technical Report*.

Based on projected traffic volumes, noise levels from the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, are expected to be:



Table 3 Modeled Noise Levels for the Purple or Green Build Corridor Alternatives, each with the CAP Design Option

Distance from Edge of Roadway Right of Way	Predicted Noise Level (decibels (dBA))
50 feet	67 dBA
100 feet	65 dBA
250 feet	61 dBA
500 feet	57 dBA

The Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would be approximately 250 feet from the Tucson Mountain Park at the closest point (see Figure 1 [Saguaro National Park, Tucson Mountain Park, and Wilderness with the Purple or Green Build Corridor Alternatives, each with the CAP Design Option]). The noise analysis indicates that noise levels at this distance would be 61 dBA, which is under the 67 dBA threshold in Table 1. Although an increase in noise levels is expected, the predicted noise levels would not exceed the threshold to be considered a constructive use.

The 250-foot distance represents the worst case scenario. During Tier 2 studies, a specific 400 foot wide alignment would be chosen within the 2,000-foot wide Build Corridor. If the selected alignment falls on the west side of the corridor, the edge of right of way could be over 1,850 feet from the western boundary of the Tucson Mountain Park.

Esthetic Features

A constructive use occurs when:

“(2) The proximity of the proposed project substantially impairs esthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property. Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting;”

The esthetic features of Tucson Mountain Park are the viewsheds of and from the park as well as the night sky views within the park. The potential for the Project to impact each of these features is described below.

Viewshed: The existing viewshed from the park where the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, are located includes existing residential developments, farms, the CAP canal structures, and the Central Area Valley Storage and Recovery Project and Southern Area Valley Storage and Recovery Project recharge basins.



Each Build Corridor Alternative would be a new element in the middle ground of this viewshed from the park. In the context of the other manmade elements in the viewshed, the visual change caused by a Build Corridor Alternative would not be so severe as to substantially impair or diminish the public park, natural and preservation attributes that qualify Tucson Mountain Park for protection by Section 4(f).

Night Skies: FHWA and ADOT have committed to mitigate impacts on night skies by complying with dark skies ordinances and by limiting lighting to be consistent with land use and development patterns at the time of Project implementation.

Mitigation: The DEIS identifies general mitigation strategies as part of the Project that will help FHWA and ADOT avoid, minimize or compensate for adverse visual impacts at viewpoints from the park. These strategies involve landscape planning in visually sensitive areas, grading designs for more natural looking slopes, surfaces and transitions, blending of stormwater management structures with the existing landscape, enhancement of highly visible features such as noise barriers and other hardscape elements, lighting design strategies, and other considerations (ADEIS Section 3.9.5). Tier 2 analysis will include further visual impact assessment and coordination with Pima County regarding the potential visual impacts to Tucson Mountain Park.

Conclusion: The foregoing esthetic effects assessment indicates that the proximity of the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would not substantially impair the esthetic features or attributes of Tucson Mountain Park. The Project would not substantially detract from the setting of the park.

Restriction of Access

A constructive use occurs when:

“(3) The project results in a restriction of access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site;”

A constructive use does not occur when:

“(7) Change in accessibility will not substantially diminish the utilization of the Section 4(f) property;”

The Purple or Green Build Corridor Alternatives, each with the CAP Design Option, would not restrict access to Tucson Mountain Park and, therefore, would not substantially diminish the utility of the park. Existing roads and routes across the Build Corridors would either be retained or adjustments made to maintain access. No restriction of access would occur and no change in accessibility would occur that would substantially diminish the utilization of the park.

Vibration

A constructive use occurs when:

“(4) The vibration impact from construction or operation of the project substantially impairs the use of a Section 4(f) property, such as projected vibration levels that are great enough to



physically damage a historic building or substantially diminish the utility of the building, unless the damage is repaired and fully restored consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, i.e., the integrity of the contributing features must be returned to a condition which is substantially similar to that which existed prior to the project;"

A constructive use does not occur when:

"(8) Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause a substantial impairment of protected activities, features, or attributes of the Section 4(f) property."

Ground vibration during construction of the Purple or Green Build Corridor Alternatives, each with the CAP Design Option, was not quantitatively evaluated as part of the Tier 1 analysis. As described in DEIS Section 3.15.7, the potential for Project construction activities to cause vibration impacts will be assessed during Tier 2. At that time and if Project impacts are indicated for the Tucson Mountain Park, specific mitigation strategies will be developed for the Project in coordination with Pima County to reduce or eliminate impacts.

Ecological Intrusion

A constructive use occurs when:

"(5) The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife and waterfowl refuge adjacent to the project, substantially interferes with the access to a wildlife and waterfowl refuge when such access is necessary for established wildlife migration or critical life cycle processes, or substantially reduces the wildlife use of a wildlife and waterfowl refuge."

Tucson Mountain Park is managed for resource conservation and public recreation; it is not a wildlife or waterfowl refuge. For this reason, this criterion does not apply to Tucson Mountain Park.

Historic Sites

A constructive use does not occur when:

"(1) Compliance with the requirements of 36 CFR 800.5 for proximity impacts of the proposed action, on a site listed on or eligible for the National Register, results in an agreement of 'no historic properties affected' or 'no adverse effect;'"

Tucson Mountain Park is not an historic site. For this reason, this criterion does not apply.

Transportation Right of Way

A constructive use does not occur when:



“(4) There are proximity impacts to a Section 4(f) property, but a governmental agency's right-of-way acquisition or adoption of project location, or the Administration's approval of a final environmental document, established the location for the proposed transportation project before the designation, establishment, or change in the significance of the property. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section;”

This criterion does not apply to Tucson Mountain Park because the Project does not involve a location for the proposed transportation project that was established before the designation, establishment, or change in the significance of the park.

Combined Proximity Impacts

A constructive use does not occur when:

“(5) Overall (combined) proximity impacts caused by a proposed project do not substantially impair the activities, features, or attributes that qualify a property for protection under Section 4(f);”

This constructive use assessment finds that combined proximity impacts to Tucson Mountain Park, after mitigation, would not substantially impair the activities, features or attributes that qualify the park for protection by Section 4(f).

Mitigation

A constructive use does not occur when:

“(6) Proximity impacts will be mitigated to a condition equivalent to, or better than, that which would occur if the project were not built, as determined after consultation with the official(s) with jurisdiction;”

ADOT is committed to mitigating for impacts to natural areas and parks. However, this mitigation is unlikely to result in a condition equivalent to or better than that which would occur if the project were not built.

Conclusion

The assessment in this white paper was completed to respond to the Reclamation's comment regarding the potential for Build Corridor Alternatives to have a constructive use on four properties: Ironwood Forest National Monument, the Tucson Mitigation Corridor, the Saguaro National Park, and the Tucson Mountain Park. The assessment resulted in the following Tier 1 findings:

- Ironwood Forest National Monument is not protected by Section 4(f);
- The constructive use provisions of Section 4(f) do not apply to the Tucson Mitigation Corridor because the Purple Build Corridor Alternative with the CAP Design Option and the



Green Build Corridor Alternative with the CAP Design Option would incorporate land from the property;

- No constructive use of the Saguaro National Park would occur because the impacts of the Project (assuming the Purple or Green Build Corridor Alternatives, each with the CAP Design Option) after mitigation would not rise to the level of being so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) would be substantially impaired; and,
- No constructive use of the Tucson Mountain Park would occur because impacts of the Project (assuming the Purple or Green Build Corridor Alternatives, each with the CAP Design Option) after mitigation would not rise to the level of being so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) would be substantially impaired.

During Tier 2, FHWA and ADOT will follow up on the commitments to coordinate with the NPS and Pima County and to identify and develop specific mitigation measures for the Project that address visual and potential construction vibration impacts.



White Paper Regarding Potential Section 4(f) Constructive Use Impacts

Public Land Order (PLO) 1015 Lands and Adjacent AGFD Parcels

12/20/2018

Constructive Use Assessment

Originally the jurisdiction of the BLM, the PLO 1015 lands were withdrawn from BLM jurisdiction in 1954 under Public Land Order 1015 and “reserved under the jurisdiction of the USFWS for wildlife refuge purposes.” The PLO 1015 lands are owned/administered by USFWS, but managed by AGFD. The USFWS considers the PLO 1015 lands to be in a special category of lands called “Coordination areas” under the National Wildlife Refuge Act. The adjacent AGFD parcels are in furtherance of the USFWS/AGFD Cooperative Agreement from 1954, clause 7.

FHWA and ADOT assessed the potential for the Project to cause a constructive use on the PLO 1015 lands. The assessment focuses on PLO 1015 lands on either side of the Purple Alternative corridor (figure below).

The primary purpose of the PLO 1015 lands is to provide open space, wildlife habitat and locations for outdoor-related recreation. The PLO 1015 lands are managed passively for the most part; for example, no designated public access infrastructure is provided to the properties adjacent to the Purple Alternative corridor.

The AGFD’s document, *Lower Gila River Wildlife Area Property Operational Plan* (2012) refers to an original, preliminary project statement and subsequent amendments as they relate to the PLO 1015 lands, stating that the lands were acquired for the purpose of providing ponds and food areas for wildfowl, upland game birds and other wildlife species; the PLO 1015 lands will not be used for any activity other than game propagation.

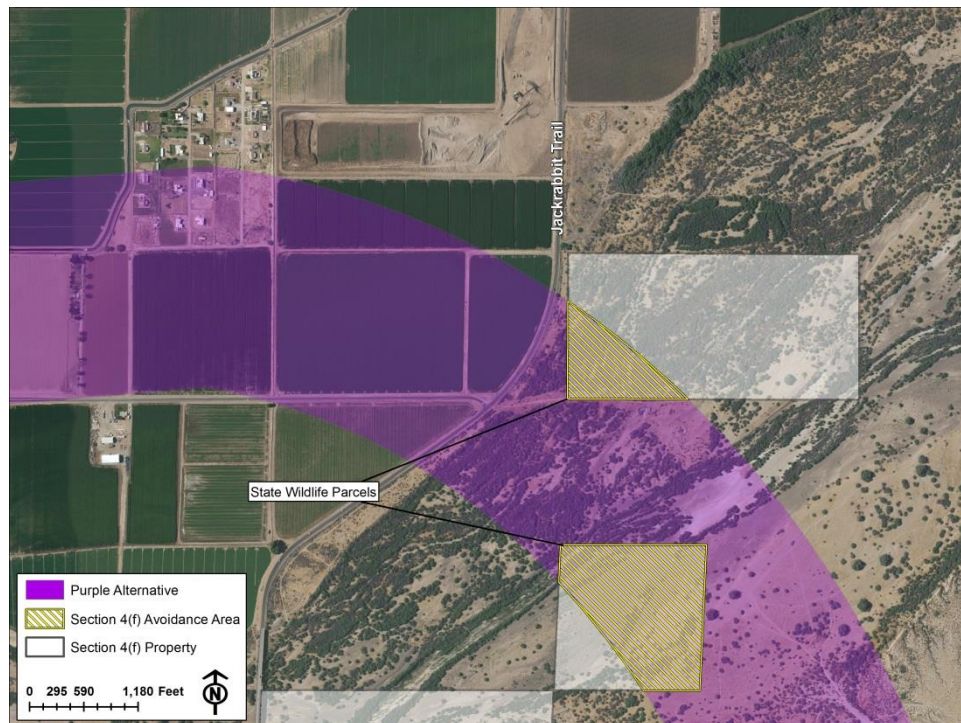
The PLO 1015 properties on either side of the Purple Alternative corridor are in the Gila River floodplain, which experiences seasonal flooding. Small game hunting occurs on PLO 1015 lands, focusing on rabbits and game birds such as doves and quail. However, no designated public access infrastructure is present.

In light of the activities, features and attributes of the PLO 1015 lands, FHWA examined the potential for the Purple Alternative to cause a constructive use to occur as defined in 23 CFR 774.15(d). As defined by the regulation, the impacts of concern to constructive use analysis are noise and light, aesthetics, public access, vibration and ecological intrusion. Of these, aesthetic and public access impacts do not apply because the AGFD does not have designated public access infrastructure for the properties.

Noise, vibration and light impacts from I-11 could cause some wildlife to move away from the highway, thereby reducing wildlife use near the highway. However, in terms of the activities, features and attributes of the PLO 1015 properties, noise, vibration and light impacts would not substantially interfere with the ability of the properties to provide shooting opportunities or reduce game bird habitat on the properties in the long-term. Based on this analysis, FHWA has determined that, in the case of the PLO 1015 lands, no constructive use would occur due to Project noise, vibration and light.

Ecological intrusion impacts from I-11 could reduce the value of habitat near the highway due to noise, light and vibration. However, the impact would not substantially reduce habitat for game birds or other wildlife on the properties. Connectivity between PLO 1015 lands on either side of the highway would be provided by wildlife crossing opportunities under the highway. Based on this analysis, FHWA has determined that, in the case of the PLO 1015 lands, no constructive use would occur due to ecological intrusion.

Based on this analysis, FHWA has determined that, in the case of the PLO 1015 lands, the proximity effects of I-11 would not be so severe that the protected activities, features or attributes that qualify the properties for protection under Section 4(f) would be substantially impaired. No constructive use of PLO 1015 lands or adjacent AGFD parcels would occur as a result of the Project.



PLO 1015 Land Parcels – Purple Alternative



**Correspondence Related to
Preliminary Draft Section 4(f) Evaluation**



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United States Department of the Interior

NATIONAL PARK SERVICE

Saguaro National Park
3693 South Old Spanish Trail
Tucson AZ 85730



IN REPLY REFER TO:

March 14, 2016

Interstate 11 Tier 1 EIS Study Team
c/o ADOT Communications
1655 W. Jackson St., Mail Drop 126F
Phoenix, AZ 85007

Dear Interstate 11 Tier 1 EIS Study Team,

Saguaro National Park has significant concerns about the Proposed Interstate 11 Corridor, specifically the potential alternative that would bring a new interstate corridor alignment adjacent to the western boundary of the park's Tucson Mountain District.

The park's Tucson Mountain District is 24,000 acres, over half of which is designated Wilderness. Encroachment from the expanding urbanization of Tucson, coupled with geographic isolation, is a considerable challenge for maintaining the park's native biodiversity. This district has already lost bighorn sheep and Mexican wolves, and park biologists are concerned that several meso-carnivores, including several skunk species, kit fox, badger, coatis and raccoons that were fairly common only a decade ago, may no longer be present. Wildlife corridors are becoming extremely scarce, and this proposed interstate project would further sever those important connections, especially to the district's west side, which is still fairly remote.

Other significant concerns include negative impacts to park resources and values that are typically affected by a large-scale linear development such as this, including Wilderness values, air quality, viewsheds, night skies, ambient noise, non-native invasive plant species, and many aspects of the overall visitor experience.

Early last year, several Saguaro staff and I met with ADOT planning and compliance staff, Dan Gabiou, Joani Kady and Mike Kies to begin dialogue and laying the groundwork for National Park Service (NPS) concerns regarding this project. Please contact Saguaro staff Scott (scott_stonum@nps.gov; 520.733.5170) or Natasha (natasha_kline@nps.gov; 520.733.5171) to schedule a meeting as soon as possible to ensure NPS concerns are understood and addressed in the I-11 Tier 1 EIS planning process.

Sincerely,

Darla Sidles
Superintendent

PRE-SCOPING MEETING WITH NATIONAL PARK SERVICE

APRIL 8, 2016

11:00 AM

SAGUARO NATIONAL PARK
3693 SOUTH OLD SPANISH TRAIL, TUCSON

AND/OR

888-369-1427

CONFERENCE CODE 3520623#

* * * AGENDA * * *

1. Introductions and Purpose of Meeting
2. History of I-11 Corridor
3. Overview of Environmental Review Process
 - a. Scoping
 - b. Alternatives Selection Report
 - c. Tier 1 Environmental Impact Statement
4. NPS Experience with Other Tier 1 EIS
5. Discussion of I-11 Corridor Issues Relevant to NPS
6. On-Going Communication Protocols and Outreach Efforts
 - a. FHWA/ADOT and NPS Coordination
 - b. Stakeholder Outreach and Involvement
7. Contact Information
 - a. Project E-Mail: I-11ADOTStudy@hdrinc.com
 - b. Toll Free Hotline: 1-844-544-8049 (Bilingual)
 - c. Website: <http://i11study.com/Arizona>
 - d. Mail: Interstate 11 Tier 1 EIS Study Team
c/o ADOT Communications
1655 W. Jackson St., MD 126F
Phoenix, AZ 85007
8. Other Issues or Items
9. Next Steps

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
Federal				
U.S. Environmental Protection Agency (EPA) (Conference Call)	March 28, 2016	Jay Van Echo, ADOT; Joanie Cady, ADOT; Alan Hansen, FHWA; Aryan Lirange, FHWA; Rebecca Yedlin, FHWA; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Heather Honsberger, HDR; Clifton Meek, EPA	Clifton Meek	<ul style="list-style-type: none"> EPA has prior Tier 1 experience in California and on recent Arizona Passenger Rail Study EPA does not see any issues with a combined FEIS/ROD; e-NEPA has not accommodated combined FEIS/ROD in the past EPA would like to be a Cooperating Agency; suggested monthly meetings for Cooperating Agencies throughout process, even if by phone
National Park Service (NPS)	April 8, 2016	Jay Van Echo, ADOT; Jan Gordley, Gordley Group; Lisa Ives, AECOM; Jen Pyne, AECOM; Kimberly Bodington, AECOM; Aryan Lirange, FHWA; Rebecca Yedlin, FHWA; Darla Sidles, NPS; Scott Stonum, NPS; Natasha Kline, NPS	Scott Stonum	<ul style="list-style-type: none"> Concerned with I-11 on west side of Saguaro National Park; possible impairment due to designated wilderness, night sky, noise levels, etc. Issues with landscape connectivity and wildlife mobility Perception that the I-11 route is predetermined NPS would like to be a Cooperating Agency; interested in monthly meetings
Bureau of Indian Affairs (BIA) (Conference Call)	April 11, 2016	Jay Van Echo, ADOT; Joshua Fife, ADOT; Lauren Clementino, ADOT; Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Gene Rogge, AECOM; Kimberly Bodington, AECOM; Carolyn Richards, BIA; Chip Lewis, BIA; David Smith, BIA	Chip Lewis	<ul style="list-style-type: none"> Be mindful of Tohono O'odham Nation's autonomy BIA cannot grant right-of-way (ROW) without consent of tribes, and suggests engaging tribes early-on Suggested reaching out to Inter Tribal Council of Arizona, Inc. (ITCA) BIA would not like to be a Cooperating Agency at this time, but instead a Participating Agency
Bureau of Land Management (BLM)	April 13, 2016	Dorothea Boothe, BLM; Joanie Cady, ADOT; Lauren Clementino, ADOT; Rebecca Heick, BLM; Nancy Favour, BLM; Joshua Fife, ADOT; Lisa Ives, AECOM (phone); Michael Kies, ADOT; Aryan Lirange, FHWA; Elroy	State Office	<ul style="list-style-type: none"> BLM interested in the inclusion of major utilities; they have identified preferred locations for solar development on BLM land It would be useful to clearly identify mitigation responsibilities BLM will provide information on landscape assessments Concerned for national monuments managed by BLM

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
		Masters, BLM; Karla Petty, FHWA; Jennifer Pyne, AECOM; Raymond Sauzo, BLM; Jay Van Echo, ADOT; Rebecca Yedlin, FHWA		<ul style="list-style-type: none"> Potential for new monuments to be delineated in Arizona; will not be known until early 2017 BLM would like to be a Cooperating Agency
U.S. Customs and Border Protection (USCBP)	April 18, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM (phone); Kimberly Bodington, AECOM (phone); Juan Delgadillo, USCBP; Samuel Lucio, USCBP (phone); Fredberto Moreno, USCBP; Kevin Hecht, USCBP	Sam Lucio (Tucson) Kevin Hecht (Nogales)	<ul style="list-style-type: none"> Prominent border issues need fixing immediately Build-out should go from Ruby Road to border; trucks are gridlocked at 20+ impacting traffic and safety Produce houses keep growing, but roads are beyond capacity to handle traffic USCBP would not like to be a Cooperating Agency at this time, but instead a Participating Agency
Bureau of Reclamation (Reclamation)	April 20, 2016	Jay Van Echo, ADOT; Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Lisa Ives, AECOM; Doug Smith, AECOM; Tab Bommarito, BOR; Sean Heath, BOR; Marcia Nesby, BOR; Mary Reece, BOR; Eve Halper, BOR	Tab Bommarito	<ul style="list-style-type: none"> Tier 1 EIS experience includes programmatic EIS; lessons learned with not adequately defining language resulted in follow-up studies/redundancy Tucson Mitigation Corridor supports the largest number of mule deer in the state and big horn sheep; language that established Tucson Mitigation Corridor will help determine if it qualifies as a Section 4(f) resource Five wildlife crossings have been constructed within the I-11 Corridor Reclamation is interested in being a Cooperating Agency
U.S. Army Corps of Engineers (USACE)	April 20, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Joanie Cady, ADOT; Kim Gavigan, USACE; Kathleen Tucker, USACE; Jesse Rice, USACE; Tracy Lester, USACE	Jessie Rice	<ul style="list-style-type: none"> USACE is currently working on an EIS for Flood Risk Management within the 500 year floodplain of the Santa Cruz River Nogales Wash is an area of interest; Deconcini Crossing is a flood risk Soil contamination found at the Santa Rosa wash near SR 84 due to agricultural activities Salt Cedar around the Gila River is an issue USACE would not like to be a Cooperating Agency at this time, but instead a Participating Agency

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
U.S. Fish and Wildlife Service (USFWS) and Arizona Game and Fish Department (AGFD)	April 21, 2016	Jay Van Echo, ADOT; Joanie Cady, ADOT; Joshua Fife, ADOT; Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Douglas Smith, AECOM; Bob Lehman, USFWS; Dana Warnecke, AGFD; Cheri Boucher, AGFD; Bill Knowles, AGFD; Kelly Wolff-Krauter, AGFD; Kristin Terpening, AGFD; Scott Sprague, AGFD	Cheri Boucher	<ul style="list-style-type: none"> AGFD views the Tier 1 EIS as an advantage, allowing adequate time for the process AGFD will provide data that can be used as input into alternatives analysis, working through ADOT AGFD is interested in being a Cooperating Agency
Federal Aviation Administration (FAA)	April 27, 2016	Jay Van Echo, ADOT; Joanie Cady, ADOT; Allen Hansen, FHWA; Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Douglas Smith, AECOM; Lorraine Herson-Jones, FAA; Jared Raymond, FAA; Kyler Erhard, FAA; Amanda Velasquez, FAA; Joseph Carlini, FAA	Lorraine Herson-Jones	<ul style="list-style-type: none"> FAA notes Nevada's interest in I-11 due to accessibility, especially freight Tucson Airport is interested in improved access FAA will provide a list of FAA regulated airports within the study area FAA does not know at this point if they will be a Cooperating or Participating agency
Federal Railroad Administration (FRA)	April 28, 2016	Jay Van Echo, ADOT; Carlos Lopez, ADOT; Aryan Lirange, FHWA; Rebecca Yedlin, FHWA; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Kimberly Bodington, AECOM; Stephanie Perez, FRA	Stephanie Perez	<ul style="list-style-type: none"> FRA has a lot of experience in Tier 1 EIS If freight rail is considered as an alternative, then important to coordinate with Surface Transportation Board (STB) FRA will reach out to regional surface transportation planners on different engineering criteria for passenger vs freight rail and future planning efforts FRA is not decided on Cooperating or Participating Agency status yet (depends on rail decision); they are interested in monthly/quarterly coordination meetings

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
State				
Arizona State Land Department (ASLD)	April 14, 2016	Joshua Fife, ADOT; Joanie Cady, ADOT; Michael Kies, ADOT; Aryan Lirange, FHWA; Jennifer Pyne, AECOM; Jay Van Echo, ADOT; Rebecca Yedlin, FHWA; Micah Horowitz, ASLD; Max Masel, ASLD; Mike Dennis, ASLD; Michelle Green, ASLD; Mark Edelman, ASLD; Ruben Ojeda, ASLD; Alan Hansen, FHWA	Mark Edelman and Ruben Ojeda	<ul style="list-style-type: none"> ASLD is most interested in providing input to best leverage economic development opportunities ASLD will look at sales on a case-by-case basis for preservation; does not support sales for land speculation ALSD expects to be a Participating Agency
Arizona State Parks (ASP)	April 19, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM; Kimberly Bodington, AECOM; Margy Parisella, ASP; Paula Pflepsen, ASP; Russell Moore, ASP; Jim Keegan, ASP	Russell Moore	<ul style="list-style-type: none"> ASP would prefer the I-11 Corridor along the existing I-19/I-10, east of Picacho Peak State Park; they would have issues with an alignment west of the park ASP would share project information with their stakeholder email lists ASP is interested in being a Participating Agency
Arizona State Historic Preservation Office (SHPO)	April 27, 2016	Jay Van Echo, ADOT; Joanie Cady, ADOT; Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Lisa Ives, AECOM; Jennifer Pyne, AECOM; Gene Rogge, AECOM; David Jacobs, SHPO; Mary-Ellen Walsh, SHPO; Jim Garrison, SPHO; Lauren Clementino, ADOT (phone)	Mary-Ellen Walsh	<ul style="list-style-type: none"> SHPO suggested that at least 3 categories of sensitivity be considered, as well as Traditional Cultural Properties (TCP) based on tribal input, major waterways, and ethnographic/cultural landscapes Recommended that tribes be engaged early in the process, including during alternatives development The group wanted more cultural data collection during the Alternatives Selection Report (ASR) phase Potential historic bottlenecks within the study area include Gila River and Ironwood/Picacho Peak areas Documentation of the specific De Anza trail location varies and locations of passes, watering holes, and other features provide the best indication of the historic location Tribal trails cross the study area

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
County				
Yavapai County (YC)	March 30, 2016	Mike Willett, Yavapai County; Jay Van Echo, ADOT; Lisa Ives, AECOM; Kristin Darr, Central Creative	Mike Willett and Byron Jaspers	<ul style="list-style-type: none"> West of 89 makes sense for connection point with 93 due to terrain Proposals/plans for new connection between I-17 and I-40 (Central Yavapai Metropolitan Planning Organization [CYMPO] 2030 Regional System); important to look at CYMPO studies Connecting Prescott area to the western part of the state (93, I-11) is important to the County I-11 vs. improving I-17 is political issue in Northern Arizona; I-17 is regularly highly congested with no current plans to fix it Increase of development in Williamson Valley may mean need for connection
Maricopa County (MC)	April 6, 2016	From MCDOT: Clem Ligocki, Mitch Wagner, Denise Lacey, Jennifer Toth; From MCPRD: Leigh Johnson, Ken Vonderscher, RJ Cardin; Jay Van Echo, ADOT; Lisa Ives, AECOM; Kristin Darr, Central Creative	Jennifer Toth and RJ Cardin	<ul style="list-style-type: none"> Need to follow up with Maricopa County Flood Control District (Bill Wiley), Air Quality (Phil McNeely) and Emergency Management (Pete Weaver) Full avoidance of Vulture Mine Park/Recreation Area is preferred; Hassayampa River is the eastern boundary and County is looking at acquiring a piece of the Hassayampa River preserve as well Power line corridor is County's preference for I-11 Palo Verde Generating Station and residents will be very interested in I-11 process A lot of MCDOT decisions over the next 3-5 years depend greatly on I-11 Raptor nesting at Vulture Peak Area of Critical Environmental Concern (ACEC) (BLM) Avoid Toyota Proving Ground; they have a 90-year renewable lease
Santa Cruz County (SCC) and City of Nogales	April 7, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM; Alice Templeton, Gordley Group; Carlos Rivera,	Juan Guerra, CON; Jesus Valdez,	<ul style="list-style-type: none"> SCC concerned about balancing the need to move freight through the corridor quickly with the potential negative impact that traffic being funneled out of cities could have

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
(CON)		CON; Aaron White, CON; Alejandro Barcenas, CON; Juan Guerra, CON; Jesus Valdez, SCC; Jennifer St. John, SCC	SCC	<ul style="list-style-type: none"> on local economies CON concerned about Nogales water supply if there are spills or accidents on the interstate; suggested staying away from the Santa Cruz River CON mentioned on the Nogales-Sonora side, there is interest in installing a new port of entry at Kino Springs; this would involve a new highway that bypasses Nogales to the east
Pinal County (PC)	April 8, 2016	Kathy Borquez, Pinal County; Greg Stanley, Pinal County; Louis Anderson, Pinal County; Andy Smith, Pinal County; Jay Van Echo, ADOT; Lisa Ives, AECOM; Heather Honsberger, HDR	Andy Smith	<ul style="list-style-type: none"> PC was involved in Passenger Rail Tier 1 EIS Potential Public-Private Partnerships with Lower Santa Cruz River Alliance Preferred Route is the West Pinal Highway Anticipates Board Resolution for Regional Transportation Authority (RTA) in June 2016 Accidents on I-10 and SR 347 cause major delays Fissures in area should be noted; PC can provide GIS data layers PC wants to be a Participating Agency
Pima County	April 18, 2016	Jay Van Echo, ADOT; Jennifer Pyne, AECOM; Jan Gordley, Gordley Group; Priscilla Cornelio, PCDOT; John Bernal, PC; John Moffatt, PC; Ana Olivares, PCDOT; Jonathan Crowe, PCDOT	Priscilla Cornelio	<ul style="list-style-type: none"> Noted importance of regional economic development Pima County analyzed, worked with tribes, identified an I-11 corridor; they prefer west of the Tucson Mountains and have made it public Flood Control concerns along their identified corridor Concerned with congestion in Tucson on I-10 Stressed need for alternate route if I-10 is closed due to an incident Concern about lack of management committees for each section and plan to participate through Pima Association of Governments (PAG)

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
Local Municipality				
City of Surprise (COS)	March 30, 2016	From Surprise: Lloyd Abrams, Karl Zook, Eric Fitzer, Dana Owsiany, Stephen Chang, Martin Lucaero; Jay Van Echo, ADOT; Lisa Ives, AECOM; Kristin Darr, Central Creative	Martin Lucero and Bob Wingenroth	<ul style="list-style-type: none"> • Sees proximity to I-11 as a plus • COS will provide shape layers related to their General Plan • Alignment close to Luke AFB would be good location because already noisy • Surprise annexing north and west • White Tank Freeway shown on Hassayampa Framework and Surprise General Plan for necessary east-west connection, if I-11 is placed too far west • Concerned about leapfrog development and sprawl if I-11 is placed too far west • Consider interface with existing rail (BNSF)
Town of Wickenburg (TOW)	March 30, 2016	From Wickenburg: Vince Lorefice, Steve Boyle, Josh Wright; Jay Van Echo, ADOT; Lisa Ives, AECOM; Kristin Darr, Central Creative	Josh Wright	<ul style="list-style-type: none"> • Wickenburg is growing mostly to the north • Hassayampa Framework showed SR 74 extension to connect to I-11—Town is opposed • Noted importance of I-11 to be close enough to Town that they can annex and capture tax revenue • Pointed to potential I-11 intersections at US 60 and US 93 • Downtown is not a registered historic district; some individual buildings are on the National Register
City of Buckeye (COB)	April 12, 2016	From Buckeye: Scott Lowe, Stephanie Wilson, Ed Boik, Stephen Cleveland, Adam Copeland, Scott Zipprich, Roger Klinger, Jason Mahkovtz, George Flores, Terri Hogan, Len Becker; John McNamara, AECOM; Jackie Kuechenmeister, CH2M; Jay Van Echo, ADOT; Kristin Darr, Central Creative	Stephanie Wilson	<ul style="list-style-type: none"> • Important to keep project visible to community • Noted sensitive wildlife corridor between the Sonoran Desert National Monument and Estrella Mountains, White Tanks to Belmonts, across Hassayampa River • North of Gila Bend is a potential National Monument • Suggested coordination with Maricopa Association of Governments (MAG) Gap and MCDOT Parkway Studies • Union Pacific owns 250 acres adjacent to Buckeye Airport • Suggested I-11 needed to be below grade near Toyota Proving Ground; need to be extremely sensitive to them • State land is key—88 square miles of it in Buckeye; need to avoid.

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
City of South Tucson (COST)	April 14, 2016	Jay Van Echo, ADOT; Jennifer Pyne, AECOM; Alice Templeton, Gordley Group; Joel Gastelum, COST; Lorenzo Gonzalez, COST; Mick Jensen, COST	Joel Gastelum	<ul style="list-style-type: none"> Long range strategy is to make South Tucson a cultural destination; they want to have a strong link to Mexico, with Mexican businesses opening stores in S. Tucson South Tucson has no issues and is happy the study is progressing because of the need for a strong connection to Mexico
Town of Marana (TOM)	April 15, 2016	Jay Van Echo, ADOT; Jennifer Pyne, AECOM; Alice Templeton, Gordley Group; Scott Leska, TOM; Jennifer Christelman, TOM; Keith Brann, TOM; Mohammad El-Ali, TOM; Morris Reyna, TOM; Steven Cheslak, TOM; Janine Spencer, TOM; Shannon Shula, TOM		<ul style="list-style-type: none"> Marana Aerospace area is being considered for annexation TOM participated in a PAG study (Regionally Significant Corridors) and comment on the corridors within Marana are planned to extend to I-11 TOM boundaries, landfill and the Santa Cruz River could all come into play TOM would not be in favor of an alignment in the Tortolita Fan TOM supports a western alignment that would also allow for skirting the Tohono O'odham San Xavier District Rillito is an environmental justice area surrounded by the Town in unincorporated Pima County, predominantly African American with 100 residents The YOM Pueblo, located in the Town of Marana, is on land owned by the Pascua Yaqui Tribe and low income
Town of Sahuarita (TOS)	April 19, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM; Alice Templeton, Gordley Group; Kelly Udall, TOS; Sheila Bowen, TOS; Sarah More, TOS		<ul style="list-style-type: none"> Ensure social impacts will be studied, including economics such as tax impacts TOS is currently focused on land development and transportation linkage, as well as the Sonoran Corridor study with El Toro Road connecting to I-11 Honing in on loop concept for everything, emphasizing capture of industrial and commercial development, sales tax to; current planning is focused on trade with Mexico, especially Tech Sector TOS has a lot of the CEOs from Mexican maquiladoras living in community and they are building on it

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
				<ul style="list-style-type: none"> • South Eastern Arizona Community Action Plan (SEACAP) includes an annexation plan to the east and includes State Land • If the I-11 / Sonoran Corridor connection happens too far south a bypass around the town is created that would be negative; too far North won't have as much impact • I-19 functions as an arterial for Sahuarita / Green Valley, if improved, frontage roads could relieve congestion on I-19
City of Goodyear (COG)	April 21, 2016	Christopher Baker, City of Goodyear (COG); Joe Schmitz, COG; Rob Bohr, COG; Luke Albert, COG; Jay Van Echo, ADOT; Lisa Ives, AECOM; Heather Honsberger, HDR	Joe Schmitz	<ul style="list-style-type: none"> • COG staff to provide previous letters to ADOT during the Feasibility Study • COG supported the Loop 303 alignment for I-11 • Informed team of the Sonoran Valley Parkway Project; BLM utility corridor also in same area • COG wants to be a Participating Agency • COG suggests public meetings in Buckeye/Goodyear south of I-10; suggested having security at public meetings and researching Arizona gun laws
City of Tucson (COT)	April 25, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM; Jan Gordley, Gordley Group; Carolyn Laurie, COT; Shellie Ginn, TDOT; Tom Fisher, TDOT; Wally Wilson, Tucson Water; Andrew Greenhill, COT; James MacAdam, COT	James MacAdam	<ul style="list-style-type: none"> • COT is concerned that I-11 corridor west of the Tucson Mountains and I-10's inability to accommodate projected I-11 traffic has been predetermined • Negative impacts on COT economic development with a corridor west of Tucson Mountains • COT prefers I-11 corridor using I-10 • Noted importance of strong basis for traffic projections and that the use of new and Smart technologies be considered, to the extent possible • Impacts of a corridor west of Tucson Mountains on Tucson Water's Avra Valley area large water recharge and storage facilities providing long term water resources for Tucson and soon for Phoenix • COT has no concerns with corridor on I-19 or corridors north of Marana

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
City of Eloy (COE)	April 26, 2016	Jay Van Echo, ADOT; Lisa Ives, AECOM; Jan Gordley, Gordley Group; Ken Martin, COE; Harvey Krauss, COE; Jon Vlaming, COE	Ken Martin	<ul style="list-style-type: none"> COE wants I-11 to connect with the North-South Corridor alignment and prefers a corridor that follows SR 87 in their area COE is looking at a potential alignment west of I-10 and identifies it as bypassing Eloy, which would not benefit them
City of Casa Grande	May 12, 2016			<ul style="list-style-type: none">
Town of Gila Bend				<ul style="list-style-type: none">
Tribal Communities				
San Xavier District, Tohono O'odham Nation	April 9, 2016	Jay Van Echo, ADOT; Jan Gordley, Gordley Group	Mark Pugh	<ul style="list-style-type: none"> Concerns for wildlife and hunting impacts Need to protect what the community has, including agricultural land use Consider archeological sites and ancestors Concerns about health impacts Consider needs and desires of future generations Concerns about how decisions will be made and who will be involved
Four Southern Tribes	April 22, 2016	Rebecca Yedlin, FHWA; Jay Van Echo, ADOT; Joanie Cady, ADOT		<ul style="list-style-type: none">
Gila River Indian Community (GRIC)	April 25, 2016	Rebecca Yedlin, FHWA (attended monthly coordination meeting)	June Shorthair	<ul style="list-style-type: none"> GRIC asked that a Class I be completed and consulted on as part of the Section 106 process GRIC would like to be provided the overall Section 106 process that will be completed with the Tier 1 so that they can provide recommendations on any additional or different work that needs to be completed Recommended that cultural resource commitments and agreements for Tier 2 be developed in with them They would like individual meetings throughout the study process to discuss the project and provide input before decisions are made They may require more detail on issues that are more

PRE-SCOPING MEETING SUMMARY

Updated: April 29, 2016

Agency	Meeting Date	Attendees	Agency Point of Contact	Meeting Summary and Highlights
				<ul style="list-style-type: none"> sensitive in nature GRIC asked that the entire project team attend Cultural Sensitivity Training given by the Tribal Historic Preservation Officer (THPO)
Ak-Chin Indian Community	May 10, 2016			<ul style="list-style-type: none">
				<ul style="list-style-type: none">
Other Stakeholders				
Arizona Transportation Builders (ATB)	March 9, 2016	Jay Van Echo, ADOT; Jan Gordley, Gordley Group; Alice Templeton, Gordley Group	Ramon Gaanderse	<ul style="list-style-type: none"> Concerned that rail will be considered in the study ATB wants to know if study team is really open to all possible alignments, including an Avra Valley alignment and expanding existing I-10 alignment into a double-deck facility
Green Valley-Sahuarita Chamber of Commerce	March 22, 2016	Jay Van Echo, ADOT; Jan Gordley, Gordley Group	Jim DiGiacomo	<ul style="list-style-type: none"> Impacts of increased traffic on I-19 will involve increased noise Concerned the impacts of a corridor other than I-19, would be felt throughout Green Valley
Southern Arizona Leadership Council (SALC)	April 27, 2016	Jay Van Echo, ADOT; Jan Gordley, Gordley Group	Ted Maxwell	<ul style="list-style-type: none"> Concerned about process and options following Tier 1 EIS Stressed importance of clarifying that the purpose of the corridor is more than truck traffic Concerned about conducting the study when no funds have been allocated
				<ul style="list-style-type: none">
				<ul style="list-style-type: none">
				<ul style="list-style-type: none">
				<ul style="list-style-type: none">

JUN 20 2016



United States Department of the Interior

NATIONAL PARK SERVICE
INTERMOUNTAIN REGION
12795 West Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225-0287



IN REPLY REFER TO:
IMRO-RSS-EQ (1248)

JUN 15 2016

Rebecca Yedlin
Arizona Department of Transportation
4000 North Central Avenue, Suite 1500
Phoenix, Arizona 85012-3500

Dear Ms. Yedlin:

The National Park Service (NPS) appreciates and accepts the opportunity to become a cooperating agency under the National Environmental Policy Act (NEPA) with the Arizona Department of Transportation (ADOT) for the Tier 1 Environmental Impact Statement (EIS) for the I-11 and Intermountain West Corridor Study project located between Nogales and Wickenburg in the counties of Santa Cruz, Pima, Pinal, Maricopa, and Yavapai, Arizona. NPS recognizes the need to ensure that such projects occur in an environmentally responsible manner. Accepting this invitation (May 23, 2016) the NPS demonstrates their commitment to work closely with ADOT to contribute valuable information to the environmental review process.

The NPS has concerns regarding the potential alternative that could bring a new interstate corridor alignment adjacent to the western boundary of Saguaro National Park, Casa Grande Ruins National Monument, and Tumacacori National Historical Park, Arizona. The Tucson Mountain District of Saguaro National Park is 24,000 acres, over half of which is designated Wilderness. Due to encroachment from the expanding urbanization of Tucson, coupled with geographic isolation, it is an ongoing challenge for the NPS to maintain the park's native biodiversity.

Through its Organic Act, NPS is charged with protecting park resources for the enjoyment of future generations. Therefore, the NPS has special expertise regarding the unique resources within and surrounding park units, including cultural and historic resources, biological resources, water quality and quantity, scenic vistas, night skies, soundscapes, and air quality. As such, NPS looks forward to working with ADOT as a cooperating agency on this project.

If you have any questions, please contact David Hurd, Environmental Protection Specialist at the Intermountain Regional Office at 303-987-6705 or by email at david_hurd@nps.gov.

Sincerely,

Sue E. Masica
Regional Director

cc: Sherry Plowman, Superintendent, Southern Arizona Office
Darla Sidles, Superintendent, Saguaro National Park
Bob Love, Superintendent, Tumacacori National Historical Park
Karl Pierce, Superintendent, Casa Grande Ruins National Monument
Melissa Trenchik, Environmental Quality Chief, IMR
David Hurd, Environmental Protection Specialist, IMR



United States Department of the Interior

NATIONAL PARK SERVICE
INTERMOUNTAIN REGION
12795 West Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225-0287



IN REPLY REFER TO:
IMDO-RSS-EQ (1248)

JUL 11 2016

Mr. Aryan Lirange
Senior Urban Engineer
Federal Highway Administration
4000 North Central Avenue, Suite 1500
Phoenix, AZ 85012

The National Park Service (NPS) has reviewed the Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) Notice of Intent (NOI) to prepare a Tier 1 Environmental Impact Statement (EIS) for the Interstate 11 (I-11) Corridor between Nogales and Wickenburg. We appreciate having the opportunity to provide our initial thoughts and comments about how this project may affect units of the National Park System.

Saguaro National Park Comments

The FHWA and ADOT identified two potential routes for the I-11 Corridor which would lead to or through the city of Tucson from Nogales, AZ. One potential route would overlap with the section of I-10 that passes near downtown Tucson, and the other would be through the Avra Valley, a few miles west of the I-10 corridor and immediately adjacent to the west district of Saguaro National Park (Park). Part of this study includes evaluation of the potential for this transportation corridor to also include rail facilities and power transmission lines. The NPS is concerned that a multi-purpose corridor of this scale bisecting the Avra Valley would irreparably degrade areas near and within the park, potentially leading to impairment of the resource values which the park was established to protect for future generations.

The Park's West District is 24,000 acres and contains designated Wilderness that would be in close proximity to a potential route through the Avra valley. Although it is being increasingly encroached upon by expanding urbanization, the west side of the district is still quite remote. Wildlife species and their contribution to the biodiversity of the park are dependent on their access to a range of habitat values across a broad landscape. Fragmenting features, such as large road systems, can essentially deny them access to habitat and resources by severing movement corridors between and within required habitat. The Park's west district in recent years has lost bighorn sheep and Mexican wolves. Connectivity of the landscape is not only critical for wildlife populations currently; it will become more critical for wildlife over time due to the pressures of climate change and continuing localized development pressures. Recent studies have biologists concerned that some mesocarnivores, including several skunk species, kit fox, badger, coatis and raccoons that were fairly common only a decade ago, may no longer be present. Wildlife corridors are becoming extremely scarce, and this proposed interstate project would serve to further sever those important connectors.

Additional concerns for the NPS include resources that would be impacted by a large-scale corridor development project such as this, including wilderness values, air quality values, viewsheds, night skies, noise, vegetation management, and visitor use. The NPS requests additional analysis be conducted on these topics within the National Environmental Policy Act document.

Juan Bautista de Anza National Historic Trail

The current projected alignment proposed intersects with the Juan Bautista de Anza National Historic Trail historic corridor, adjacent to/contains the Anza recreation retracement route (recreation trail) and Auto Route. The Santa Cruz River valley offers high-quality recreation opportunities for visitors to experience landscape settings similar to that which the Anza expedition party encountered while they were travelling through southern Arizona. A new segment of highway could potentially impact established Anza Recreation Trail, the Anza Auto Tour Route, and the visual settings and landscape character of the Santa Cruz River valley and Sonoran Desert.

National Historic Landmarks

The NPS National Historic Landmarks (NHL) program has reviewed the NOI and would like to inform the FHWA and ADOT of 11 NHLs located near the proposed area of potential effect for the I-11 corridor. To the maximum extent possible, efforts should be made to minimize any potential direct and indirect impacts to the following NHLs located in counties impacted by the undertaking (i.e., Maricopa, Pima, Pinal, Santa Cruz, and Yavapai counties): Gatlin Site, Pueblo Grande Ruins and Irrigation Sites, Taliesin West, Ventana Cave, Desert Laboratory, San Xavier del Bac Mission, Snaketown, Mission Los Santos Angeles de Guevavi, Tumacacori Museum, San Cayetano de Calabazas, and Jerome Historic District. In accordance with Section 106 of the National Historic Preservation Act, please consider these sites in the scope of the EIS and feel free to contact our office with any questions or for further information on these sites.

The NPS has a continuing interest in working with all parties to ensure project impacts to NPS units are avoided. We appreciate the opportunity to provide input on this component of the proposed I-11 Corridor project. If you have any questions regarding these comments, please contact, Environmental Protection Specialist, David Hurd at (303) 987-6705 or by email at david_hurd@nps.gov.



Melissa R. Trenchik
Environmental Quality, Chief



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Saguaro National Park
3693 South Old Spanish Trail
Tucson AZ 85730



June 2, 2017

Rebecca Yedlin
Environmental Coordinator
FHWA – Arizona Division
4000 N. Central Ave., Suite 1500
Phoenix, AZ 85012

Dear Ms. Yedlin:

The National Park Service (NPS) attended the public scoping meeting at the Arizona Riverpark Inn in Tucson on May 2, 2017, for the preparation of an Environmental Impact Statement (EIS) for the Interstate I-11 Corridor Project. We appreciate the opportunity to submit additional thoughts and comments in regards to how this project may affect Saguaro National Park (Park).

Our specific comments on the meeting materials and presentation follows:

- **Symbology for Sensitive Environmental Resources.** The page entitled “South Section: Screening Results”, shows Alternative C as “*Reasonably meets criteria*” and Alternative D as “*Least meets criteria*” for Sensitive Environmental Resources. The NPS requests that both alternatives be identified as “*Least meets criteria*”. While Alternative D is located slightly farther from Saguaro National Park than Alternative C, it is still ½ mile from the park and ¾ mile from federally-designated Saguaro Wilderness. The NPS suggests that any route bisecting the Avra Valley would have similar impacts to environmental resources such as wildlife corridors, and therefore would warrant the same rating for each alternative.
- **Communication of potential multi-modal use.** The NPS requests additional information be provided regarding the uses for the corridor to include freight rail, passenger rail and a utility corridor. This would help to better understand the environmental impacts to Park resources. We understand that impacts of these additional uses will be assessed in-depth at a later time, however the NPS requests that an analysis of impacts from the additional facilities be utilized as part of the current process in determining route selection.

In order to better understand the full implications of the proposed development on Saguaro National Park, it would be beneficial to holistically evaluate the potential impacts rather than utilizing a fragmented analysis that may not directly address impacts to the Park. We would also recommend that the EIS give attention to any mitigation options necessary to avoid adverse

impacts on these resources, and identify follow-up monitoring necessary to evaluate the efficacy of any mitigation measures.

Finally, we wish to reiterate our assessment that if this project is to move forward, we would strongly prefer the alternative that utilizes the current Interstate 10 corridor. Even with mitigations, the two western alignment alternatives would have severe and widespread impacts to Saguaro National Park, federally-designated Saguaro Wilderness, associated Class I Airshed, natural sounds, viewsheds, night skies, plant communities and wildlife.

Thank you again for the opportunity to provide these comments. We appreciate your attention to our concerns. The NPS is committed to working collaboratively with our state, federal, and tribal partners to develop and implement a cooperative framework for sound science-based management of the I-11 corridor. If you have any questions about these comments, please contact me at 520-733-5101 or Scott Stonum at 520-733-5170.

Sincerely,



Leah McGinnis
Superintendent



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Saguaro National Park
3693 South Old Spanish Trail
Tucson AZ 85730



August 31, 2017

Rebecca Yedlin
Environmental Coordinator
FHWA – Arizona Division
4000 N. Central Ave., Suite 1500
Phoenix, AZ 85012

Dear Rebecca:

Thank you for the opportunity to review the Annotated Outline and Methodology Report for the Interstate 11 Tier 1 Environmental Impact Statement. We have a few comments for consideration. Under Section 3, Affected Environments and Environmental Consequences we would request that you consider adding dark skies and wilderness as impact topics. Saguaro National Park has popular night sky viewing programs for amateur and professional astronomers, along with general night sky viewing opportunities available to the general public. Significant sky viewing infrastructure also exists within a distance that could potentially be impacted by lighting from the project (Whipple Observatory, Mount Lemmon Observatory, Steward Observatory, and Kitt Peak National Observatory). Due to the proximity of this project to the Saguaro Wilderness we will be exploring potential impacts on qualities protected under the Wilderness Act such as, untrammeled, undeveloped, natural, and outstanding opportunities for solitude or a primitive and unconfined type of recreation.

We also ask that you consider adding impacts to ethnographic resources on non-tribal lands as an impact topic under Section 3. The Tohono O'odham Nation has used the lands now comprising Saguaro National Park for traditional practices prior to the establishment of the park and has continued to use these lands for these practices each year since its establishment. Potential alignments through Avra Valley are directly adjacent to these ethnographic use areas.

On page 15 we noticed that the Juan Bautista de Anza National Historic Trail is not on the list as a standalone, National Park Service unit within the study area, although it is shown on project maps. Additional sites that are also within the study area and may meet the 4(f) criteria for consideration: the Arizona-Sonora Desert Museum, Mission San Xavier del Bac, and the Titan Missile National Historic Landmark.

In section 3.14.1, p. 25, please consider listing the spread of invasive plant species as a topic to be considered within this section, as construction activities and transportation infrastructure are primary vectors for invasive, non-native plant species. As a Cooperating Agency, we value our opportunity to comment on this document. Thank you for addressing our comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Leah McGinnis". The signature is fluid and cursive, with the first name "Leah" and last name "McGinnis" clearly distinguishable.

Leah McGinnis
Superintendent

MEETING PURPOSE: ADOT I-11 Coordination Meeting with Saguaro National Park

DATE & TIME: December 19, 2017

LOCATION: Meeting at Saguaro National Park and Conference Call

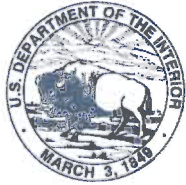
ATTENDEES: Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Jay Van Echo, ADOT; Scott Stonum, NPS; Ray O'Neil, NPS; Don Swann, NPS; Leah McGinnis, NPS; Adam Springer, NPS; Jennifer Pyne, AECOM; Anita Richardson Frijia, AECOM; Don Weeks*, NPS; Melissa Trenchick*, NPS; Katie Rodriguez*, ADOT; Randy Stanly*, NPS; John Notar*, NPS; Mark Myer*, NPS; Debbie Miller*, NPS; Joshua Fife*, ADOT
 *Participated via conference call

MEETING SUMMARY

Key Discussion Points/Action Items:	Responsible Party / Action Item
1. The group discussed methodology and approach for visual resources analysis, including consideration of Park Service values such as the potential impact on setting and the visitor experience. The ADOT study team has identified key observation points (KOPs) for the analysis and acknowledged the Class I airshed in Saguaro National Park.	AECOM to provide shapefile of KOPs identified to date. NPS to provide information on preferred KOPs.
2. Landscape connectivity is a key issue, particularly between Ironwood National Forest Monument and Saguaro NP. NPS noted that some species are already experiencing losses due to cumulative analysis. There is some camera data on smaller carnivore species populations, primarily from west unit of the park.	NPS to provide species data as available.
3. The group discussed preparation on representative renderings or simulations for the project.	ADOT/FHWA to discuss further.
4. NPS provided input on air quality analyses. The group discussed that conformity and hot-spot analyses would not be part of the Tier 1 level, programmatic analysis. NPS expressed additional concern about emissions from vehicles; visibility impacts related to NO ₂ , PM ₁₀ and PM _{2.5} ; and deposition of nitrogen.	Input to be considered in EIS analysis.
5. Night skies will be addressed in Tier 1 EIS, may be more of a cumulative impact. The group discussed that some baseline data is available but generally this is an emerging area.	Input to be considered in EIS analysis.
6. The group discussed noise and soundscape. NPS asked whether quiet pavement could be used. The noise analysis cannot assume this; materials decisions would probably occur in Tier 2.	Input to be considered in EIS analysis.

Key Discussion Points/Action Items:	Responsible Party / Action Item
7. Some areas may be managed for wilderness character, which includes 5 qualities that should be assessed for potential impacts.	Input to be considered in EIS analysis.
8. FHWA raised the idea of a tunnel to potentially avoid impacts on the Tucson Mitigation Corridor. NPS questioned whether vibration would be an issue and indicated that solution would be less beneficial to the park.	N/A
9. The group agreed to continue discussions in the monthly Cooperating Agency meetings.	N/A

cc: Document Control



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Arizona State Office

One North Central Avenue, Suite 800

Phoenix, Arizona 85004-4427

www.blm.gov/az/



JUL 18 2016

JUL 13 2016

In Reply Refer To:
9110-1 (9200)

U.S. Department of Transportation
Federal Highway Administration
Attn: Karla S. Petty
4000 N. Central Avenue, Suite 1500
Phoenix, AZ 85012-3500

Dear Ms. Petty:

The Bureau of Land Management (BLM), Arizona State Office, appreciates the opportunity to offer comments to the Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) on the Tier 1 Environmental Impact Statement (EIS) for the I-11 Corridor. The BLM understands that this EIS is an opportunity to identify and study multiple alternatives within the already identified I-11 Study Corridor and hopes to assist in this process by identifying both potential natural resource and management conflicts in portions of the Study Corridor as well as appropriate locations for siting new transportation infrastructure.

As a cooperating agency on this project, the BLM looks forward to assisting the FHWA and ADOT in this analysis. Much of the discussion below identifies possible conflicts with sensitive resources on BLM-administered lands or designations within BLM's resource management plans (RMPs) in the study area. The FHWA and ADOT's scoping materials acknowledge many of these designations and potential conflicts. Amendments to BLM's RMPs may be necessary on the project-specific level in order to grant a right-of-way or otherwise permit an interstate highway or larger multi-modal corridor. These amendments would be part of the project-specific Tier 2 National Environmental Policy Act analysis. However, the BLM will work with the FHWA and ADOT to try to identify these issues to the extent practicable through this Tier 1 process.

The three sections of the Study Corridor (North, Central, and South) identified in the scoping materials roughly align with three BLM field offices in central and southern Arizona: Hassayampa, Lower Sonoran, and Tucson. Additionally, two BLM-administered national monuments, Sonoran Desert and Ironwood Forest, are within or adjacent to the Study Corridor. Accordingly, geographically focused comments follow these administrative divisions followed by additional, more general comments.

North Section: BLM Hassayampa Field Office

Within the Hassayampa Field Office, the eastern and western portions of the I-11 Study Corridor are the preferred locations for further analysis. In the Hassayampa Field Office area, a route from I-10 through Surprise to U.S. Highway 60 in the eastern part of the Study Corridor would avoid the 70,000 acre Vulture Mountains Cooperative Recreation Management Area and most BLM specially designated areas and natural resource conflicts. A western route through the study corridor that avoids both the Vulture Mountains Cooperative Recreation Management Area and the Black Butte Area of Critical Environmental Concern (ACEC) would also avoid sensitive resources while providing an alternative corridor for analysis.

Central Section: BLM Lower Sonoran Field Office and Sonoran Desert National Monument

The identification of new routes as corridor alternatives within the Sonoran Desert National Monument (SDNM) should be avoided. Per the 2001 Presidential Proclamation establishing the SDNM, the nearly 500,000 acre monument “encompasses a functioning desert ecosystem with an extraordinary array of biological, scientific, and historic resources.” Moreover, the SDNM includes two congressionally designated wilderness areas and the Juan Batista de Anza National Historic Trail corridor. Currently, the southern portion of the SDNM is crossed by I-8. This existing portion of I-8, generally between Casa Grande and Gila Bend, may be a viable corridor alternative for analysis. However, adding additional infrastructure, including a wider highway or other multi-modal features, would be incompatible with the national monument and wilderness designations.

West of the SDNM, an I-11 alignment in the western edge of the Study Corridor from I-8 in the Gila Bend area on State Route 85 to I-10 would take advantage of existing transportation corridors and avoid significant impacts to the SDNM and additional BLM-administered lands and natural resources.

The Study Corridor also extends to lands north of the SDNM. This area may be a viable route for a corridor alternative, and portions of it have previously been studied as part of the Sonoran Valley Parkway, another transportation proposal. Compatibility with that proposal as well as designated wildlife corridors, existing rights-of-way, and a permitted (but not yet built) solar energy facility in the area should be considered.

South Section: BLM Tucson Field Office and Ironwood Forest National Monument

The BLM Tucson Field Office has significant concerns about potential overlap or adjacency of the I-11 Study Corridor with the eastern boundary of the 129,000-acre Ironwood Forest National Monument (IFNM). The study corridor includes sliver-like portions along the eastern boundary of the IFNM that the BLM recommends avoiding and eliminating from further analysis. The portions of the IFNM in the Study Corridor contain multiple resource values including extensive recreational use, cultural and archaeological resources, and biological values including State and Federal endangered and otherwise protected species.

The Presidential Proclamation establishing the IFNM states that Monument lands “are withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under

the public land laws, including but not limited to withdrawal from location, entry and patent under the mining laws relating to mineral and geothermal leasing other than by exchange that furthers the protective purposes of Monument.” This would appear to preclude the granting of a transportation right-of-way to the FHWA or ADOT. The 2012 IFNM RMP makes no allocations for transportation corridors within the IFNM boundaries. Additionally, the IFNM is a Special Recreation Management Area (SRMA) designated in the RMP. The SRMA designation includes objectives to preserve its undeveloped character. If an alignment is selected along the western part of the Study Corridor, the character of this SRMA would be affected.

Should a route alternative in the vicinity of the IFNM be selected, impacts analysis should consider potential impacts to monument objects and resources within the designated IFNM boundaries. Objects of the IFNM as defined in the IFNM RMP that may be impacted by a highway or multi-modal corridor such as this include visual resources, habitat for threatened and endangered wildlife and vegetative species, archaeological objects of scientific interest, and visitor access.

The Study Corridor includes several access routes providing public access to the IFNM from I-10. These routes are on roads maintained by Pinal and Pima Counties (Avra Valley, Silverbell, Sunland Gin, and Harmon Roads). Depending on the selected alignment, these routes and the access to the IFNM they provide could be impacted. Ideally, any new interstate highway alignment near the IFNM would not negatively impact visitor access.

Important cultural resources that should be avoided within the study corridor include the 13,000-acre Los Robles Archaeological District, which is on the National Register of Historic Places and other large archaeological sites located along the Santa Cruz and Greens Reservoir drainages. Another important cultural resource is the Indian Kitchen area near Helmet Peak. At a minimum, locations of these and other cultural resources should be identified through a Class 1 archaeological literature review in coordination with the Arizona State Museum and State Historic Preservation Office.

Overarching Issues

Threatened, endangered, and sensitive species identified by the BLM and other agencies identified in the study area include the Pima pineapple cactus, yellow-billed cuckoo, southwestern willow flycatcher, gilded flicker, Sonoran desert tortoise, desert bighorn sheep, cave myotis bat, California leaf nose bat, longfin dace, and lowland leopard frog. The BLM encourages close coordination with the Arizona Game and Fish Department and the U.S. Fish and Wildlife Service to identify potential impacts to these and other species in the Study Corridor. Additionally, the BLM encourages avoidance of RMP designated wildlife movement corridors and wildlife habitat management areas

The Study Corridor includes the Juan Bautista de Anza National Historic Trail corridor from its origin in Nogales through the SDNM. This trail is managed by the National Park Service in coordination with the BLM and includes a general route and a motorized route along existing County-maintained roads. This trail does not cross any BLM land in the Tucson Field Office; it does cross BLM-administered land in the Lower Sonoran Field Office and the Sonoran Desert National Monument to the northwest.

Impacts to other resources and designations that should be considered in this Tier 1 analysis include RMP designations for visual resource management, recreation and travel management, and specially designated areas (e.g., ACEC, wilderness areas). Potential impact to existing uses including permitted rights-of-way, livestock grazing, and mining should also be considered.

Questions regarding these comments can be directed to Lane Cowger, Project Manager, at 602-417-9612, or email at lcowger@blm.gov. Mr. Cowger will also be the point of contact for sharing geographic information system shapefiles for the resources and designations identified in these comments. Thank you.

Sincerely,



Rebecca Heick
Deputy State Director
Lands, Minerals and Energy

cc: Interstate 11 Tier 1 EIS Study Team
c/o Arizona Department of Transportation
Attn: Communications
1655 W. Jackson Street, Mail Drop 126F
Phoenix, AZ 85007

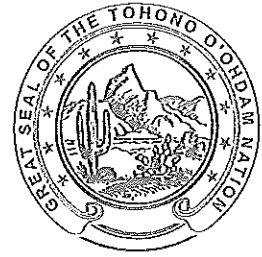
Bureau of Land Management
Gila District Office
Attn: Pamela Mathis, Acting District Manager
3201 E. Universal Way
Tucson, AZ 85756-5021

Bureau of Land Management
Phoenix District Office
Attn: Leon Thomas, District Manager
21605 N. 7th Avenue
Phoenix, AZ 85027-5500



TOHONO O'ODHAM NATION SCHUK TOAK DISTRICT

P.O. Box 368
Sells, Arizona 85634
Telephone (520) 383-4660
Fax (520) 383-5575
Email: schuktoak@toua.net



RESOLUTION OF THE SCHUK TOAK DISTRICT (Opposition of the Interstate-11 Corridor on or near the Garcia Strip Community)

Resolution No.: ST-02-11-17-019

WHEREAS, the Schuk Toak District Council convened in a meeting on February 11, 2017 with a quorum present; and

WHEREAS, In November 2014, the Arizona and Nevada Department of Transportation completed an initial two-year feasibility study known as the Interstate-11 and Intermountain West Corridor Study. The 280-mile stretch will connect Nogales and Wickenburg. It will continue on to the Hoover Dam bypass bridge near Las Vegas. This Interstate 11 Corridor (I-11) will eventually connect Mexico and Canada (see background sheet). The proposed 2,000-foot wide corridor for the interstate has additional options which include the possibility of building a railway and utility lines, (see Proposed Transportation Facility Options). The land required for the frontage roads, drainage, maintenance, and sound walls, etc., are also concerns; and

WHEREAS, the Garcia Strip Community, Schuk Toak District of the Tohono O'odham Nation, opposes the intent of the Arizona Department of Transportation (ADOT) and others involved (see Proposed Transportation Facility Options) to build the I-11 Corridor, on or near, the Garcia Strip Community. An option shown on the map provided by ADOT designates land for the corridor will cut through the Garcia Strip Community which is located on the Eastern boundary of the Tohono O'odham Nation (see map); and

WHEREAS, Garcia Strip Community land has flood plains, sacred sites which cannot be developed and the land base has already been reduced by the following programs:

Program	Land Usage	For	Additional Comments
Tohono O'odham Farming Authority	2,300+ Acres	Schuk Toak Farms	
Southern Arizona Water Rights Settlement Act (SAWRSA) – Bureau of Reclamation (BOR)	500 ft by 7 miles	Wildlife Corridor	Additional undefined restrictions to come
AZ G&T (Formally Southwest Transmission)	50 ft by 3 miles	Transmission power line easement	

; and

WHEREAS, the Schuk Toak District Council discussed and opposes the construction of the I-11 Corridor on or near the Garcia Strip Community.

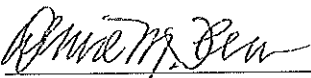
NOW, THEREFORE, BE IT RESOLVED that the Schuk Toak District of the Tohono O'odham Nation, is opposed to the construction of the Interstate-11 Corridor on or near the Garcia Strip Community.

BE IT FINALLY RESOLVED that the foregoing resolution was enacted by the Schuk Toak District Council with a vote of 15 FOR; 01 AGAINST; [02] ABSENT pursuant to the powers vested in the Council by Article IX, Section 5 of the Constitution of the Tohono O'odham Nation.

ATTEST:



District Council Secretary



Phyllis Juan, District Chairperson

MEETING PURPOSE: Discuss I-11 ASR and Tier 1 EIS

DATE & TIME: February 24, 2017

LOCATION: Conference Call

ATTENDEES: Rebecca Yedlin, FHWA; Aryan Lirange, FHWA; Jay Van Echo, ADOT; Lane Cowger, BLM; Rem Hawes, BLM; Jennifer Pyne, AECOM

MEETING SUMMARY

Key Discussion Points/Action Items:	Responsible Party / Action Item
1. BLM would prefer alternatives that are west of the Vulture Mountains Recreation Area (VMRA). In lieu of this option, an alternative within the multi-use corridor in Vulture Mountains would be considered acceptable. The third choice would be to deviate from the designated corridor in order to have a more direct route. BLM does not consider an alternative on Vulture Mine Road to be acceptable.	
2. Regardless of whether an alternative is located within the multi-use corridor, the VMRA would be considered a 4(f) resource. An exception could occur if FHWA and BLM engage in joint planning and required mitigation would be identified in this area. Rem Hawes stated that BLM can provide a letter on this topic, and he will coordinate with resource specialists regarding potential mitigation.	BLM to provide letter on joint planning for 4(f) resource [Vulture Mountains Recreation Area]. BLM will review 4(f) issues and coordinate with FHWA.
3. FHWA indicated that alternatives through VRMA may not be presented unless a letter on joint planning is provided, due to the 4(f) issue. The study team needs to know which alternatives are realistic on BLM-managed lands.	
4. BLM indicated that a Resource Management Plan Amendment would not be required if an alternative is entirely within the multi-use corridor. It was noted that scattered BLM parcels throughout the I-11 study area would require a ROW grant and/or new corridor designation.	
5. ADOT/FHWA will provide shapefiles for rough alternatives locations so BLM can provide input on potential issues.	ADOT/FHWA to provide GIS shapefiles for preliminary alternative locations.
6. The I-8 corridor is generally 300 feet wide. It was stated that alternatives	

Key Discussion Points/Action Items:	Responsible Party / Action Item
following I-8 could probably fit within the existing ROW. It was noted that it would be difficult decision for BLM to allow encroachment along this corridor.	
7. The group discussed whether a meeting was warranted between Ray Suazo and Karla Petty, and concluded that it was not needed at this time. They should touch base before the Draft EIS is issued.	
8. Rem Hawes indicated that an MOU was under preparation between BLM and Maricopa County Parks regarding recreation management in VMRA.	

cc: Document Control



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Phoenix District
Hassayampa Field Office
21605 North 7th Avenue
Phoenix, Arizona 85027
www.blm.gov/az/



May 12, 2017

In Reply Refer To:
1610 (P010)

Karla S. Petty
US Department of Transportation
Federal Highway Administration
4000 N Central Avenue, Suite 1500
Phoenix, AZ 85012-3500

Dear Ms. Petty:

The Bureau of Land Management (BLM), Hassayampa Field Office, appreciates this opportunity to offer our comments on alternative routes under consideration in the Interstate 11 Tier 1 Environmental Impact Statement, particularly their conformance with the BLM's Bradshaw-Harquahala Resource Management Plan (RMP) in the northern portion of the I-11 study area. This is to address Federal Highway Administration 4F property requirements and our joint planning requirement.

The BLM is particularly interested in avoidance, minimization, and mitigation of potential impacts to the Vulture Mountains Cooperative Recreation Management Area (CRMA) south of Wickenburg. The BLM would prefer complete avoidance of the Vulture Mountains CRMA. This could be accomplished by selecting Segment S or a hybrid of Segments S and T, which skirt the CRMA to the west. This alternative would not require an RMP amendment.

Alternatively, the Bradshaw-Harquahala RMP identifies a multi-use corridor in the western portion of the Vulture Mountains CRMA. Segment U is within this corridor, and future development in the corridor could be collocated with existing electrical transmission infrastructure in the corridor to consolidate disturbance and environmental impacts.

The BLM would consider amendments to the Bradshaw-Harquahala RMP needed to permit highway development as part of a future right-of-way application and Tier 2 analysis.

The BLM encourages you to eliminate alternative segments V and W because of their potential impact to access and recreation within the Vulture Mountains CRMA as well as the Vulture Mountains Area of Critical Environmental Concern, wildlife habitat, and other sensitive natural and cultural resources in the area.

I appreciate our cooperating agency relationship on this important project and look forward to continued cooperation between our agencies now and in future Tier 2 permitting. Please don't hesitate to reach out to me at rhawes@blm.gov or 623-580-5530, or the BLM's project manager, Lane Cowger at lcowger@blm.gov or 602-417-9612, with any inquiries about this correspondence or other needs.

Sincerely,



Rem Hawes
Field Manager

Cc: Rebecca Yedlin
USDOT Federal Highway Administration
4000 N Central Ave
Phoenix, AZ 85012-3500

Aryan Lirange
USDOT Federal Highway Administration
4000 N Central Ave
Phoenix, AZ 85012-3500

Lane Cowger, BLM AZSO, LLAZ9200



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

ARIZONA DIVISION

4000 North Central Avenue
Suite 1500
Phoenix, Arizona 85012-3500
Phone: (602) 379-3646
Fax: (602) 382-8998
<http://www.fhwa.dot.gov/azdiv/index.htm>

April 12, 2018

In Reply Refer To:

999-M(161)
999 SW 0 M5180 01P
I-11, I-19/SR189 to US 93/SR 89
I-11 Corridor Tier 1 EIS
Vulture Mountain CRMA Section 4(f) Consultation

Mr. D. Remington Hawes, Field Manager
Bureau of Land Management
Hassayampa Field Office, Phoenix District
21605 North 7th Avenue
Phoenix, AZ 85027

Dear Mr. Hawes:

The Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) are preparing a Tier 1 Environmental Impact Statement (Tier 1 EIS) for the Interstate 11 (I-11) Corridor between Nogales and Wickenburg, Arizona. The FHWA is the Federal Lead Agency and ADOT is the Local Project Sponsor for the Tier 1 EIS. The I-11 Corridor study area encompasses some Bureau of Land Management (BLM) land including the Sonoran Desert National Monument and the Vulture Mountains Cooperative Recreation Management Area (CRMA). The purpose of this letter is to seek your input and understanding, as the official with jurisdiction, concerning the history and purpose of the multi-use corridor established within the Vulture Mountain CRMA to help inform our determination of Section 4(f) applicability to the alternatives under consideration.

A. I-11 and Vulture Mountains CRMA

The Tier 1 EIS evaluates the need for a transportation facility from Nogales in southern Arizona to just north of Wickenburg and means to address it. Three build corridor alternatives are being examined in the EIS in the North Section of the study area and are shown in the enclosed Corridor Options Map. Among these corridors, two Build Corridors (also known as Options U and V in the Alternatives Selection Report: V was recently modified to avoid Vulture Mine Road and relabeled to X for clarity) are located within the multi-use corridor through the Vulture Mountain CRMA to avoid direct impacts to the property's recreational attributes. The third Build Corridor (also known as Option S) would be aligned west of and adjacent to the Vulture Mountains CRMA property, such that no direct impact on the Vulture Mountains CRMA property would occur.

B. Planning Documents

The BLM manages the Vulture Mountains CRMA, consisting of approximately 70,000 acres of land south of Wickenburg, Arizona. Activities on the land are guided by two primary planning documents: the 2010 Bradshaw-Harquahala RMP and the 2012 CRMA Plan. The RMP

designates a number of multi-use corridors, including the north-south multi-use corridor that crosses the western portion of the Vulture Mountains CRMA property (see enclosed BLM Map 9 from the B-H RMP). Multi-use corridors are defined in the RMP as being for major utilities and regionally significant transportation uses. The facilities must be compatible with one another in order to be co-located within the corridors, and facility development requires analysis of impacts in accordance with the National Environmental Policy Act (NEPA). The RMP specifies that the BLM will coordinate with ADOT in advancing such transportation uses in multi-use corridors. I-11 is specifically identified in the CRMA Plan as a planned transportation project.

C. Compliance with Section 4(f) Joint Planning Criteria

Section 4(f) of the US Department of Transportation Act of 1966, as amended (23 CFR 774) [Section 4(f)] requirements stipulate that FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless: (1) there is no feasible and prudent avoidance alternative to the use of land; and the action includes all possible planning to minimize harm to the property resulting from such use; or, (2) the Administration determines that the use of the property will have a *de minimis* impact.

However, there are several special situations where the Section 4(f) requirements don't apply [See 23 CFR § 774.11 (Applicability)]. One situation is when a public park, recreation area, or wildlife and waterfowl refuge is planned or developed with a future transportation use in mind, and an area is reserved or set aside within the Section 4(f) property for that use; the so-called "Joint Development" situation [§ 771.11(i)]. As long as the reservation was made before or at the same time the adjacent portions were designated as a park, recreational area, or refuge property, Section 4(f) will not apply. The specific governmental action that must be taken to reserve a transportation corridor with the Section 4(f) property is a question of the applicable law, but may include ordinances, adopted land use plans, deed restrictions, or other actions. Documented evidence must be provided in order to demonstrate that the area in question was reserved for transportation purposes before or at the same time that the adjacent portions were designated as a park, recreational area or refuge property.

FHWA believes that either the Option U or X Build Corridor Alternatives, which will utilize the multi-use corridor through the CRMA, satisfy the Joint Development criteria and that Section 4(f) would not apply in those locations (See enclosed I-11 VM Area Linkages Map). This conclusion is based on our understanding that:

1. The Vulture Mountain multi-use corridor was designated by the Bradshaw-Harquahala RMP and reaffirmed in the CRMA Plan, both prior to the initiation of the I-11 Tier 1 EIS;
2. The purpose of the multi-use corridor is to accommodate future infrastructure development, including interstate transportation facilities, and I-11 was specifically contemplated as one such potential development;
3. The proposed alternatives conform to the intent and purpose of the multi-use corridor and the Bradshaw-Harquahala RMP; and
4. All NEPA requirements for the future development of the corridor by I-11 will be addressed in the I-11 Tier 1 EIS and future Tier 2 NEPA studies. FHWA is already working with the

BLM as a cooperating agency, which is defined in 40 CFR § 1501.6, in this effort. Recent and relevant correspondence between BLM and FHWA is provided in the enclosed BLM Letter Re: RMP dated May 12, 2017.

FHWA requests BLM's input and concurrence on these assumptions to assist in making a final determination on the applicability of Section 4(f) to the Option U and X Corridor Alternatives under § 771.11(i). If you concur with these assumptions, please indicate your concurrence by signing below, or let us know if you think further information should be considered.

FHWA and ADOT look forward to continuing our successful working relationship with BLM on this project. If you have questions or concerns, please contact Rebecca Yedlin, FHWA Environmental Coordinator at Rebecca.Yedlin@dot.gov or 602-382-8979.

Sincerely yours,



Karla S. Petty
Division Administrator



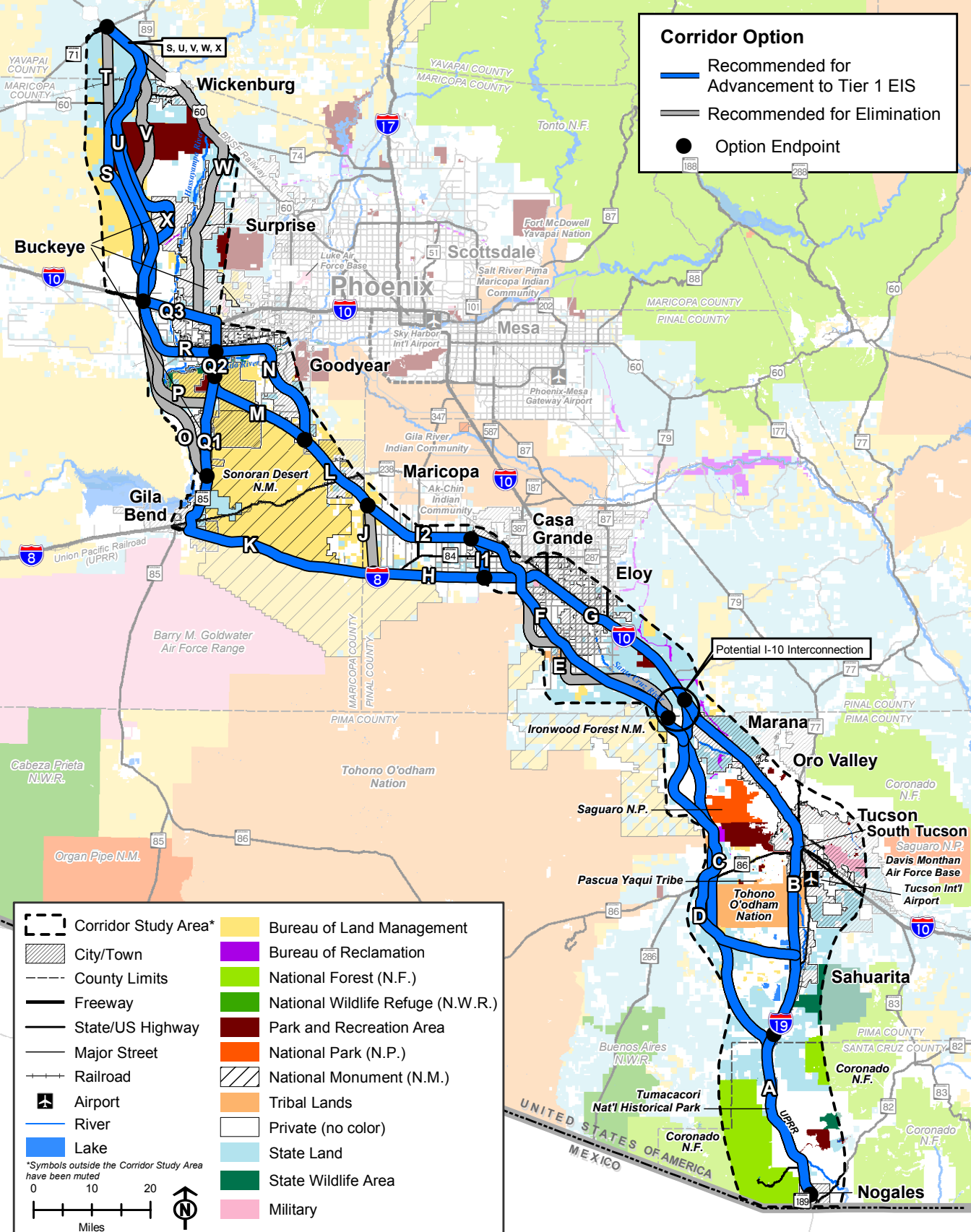
Signature for BLM Concurrence
999-M(161)

4/30/2018
Date

Enclosures


ecc:
Lane Cowger, BLM
ALirange
JVan Echo

The BLM concurs with your assumptions regarding Section 4(f) applicability. we continue to prefer complete avoidance of the Vulture Mountains recreation area, which could be accomplished by selecting Segment S.






Map 9 Bradshaw-Harquahala Planning Area

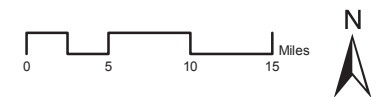
Utility & Transportation Corridors and Communication Sites

-  Agua Fria National Monument Planning Area
-  Bradshaw Harquahala Planning Area
-  BLM Wilderness
-  USFS Wilderness
-  Interstate
-  Highway
-  Major Road
-  Major River, Streams or Wash

Corridors Allocations

-  Multi-use Corridor
-  Transportation Corridor
-  Communication Site

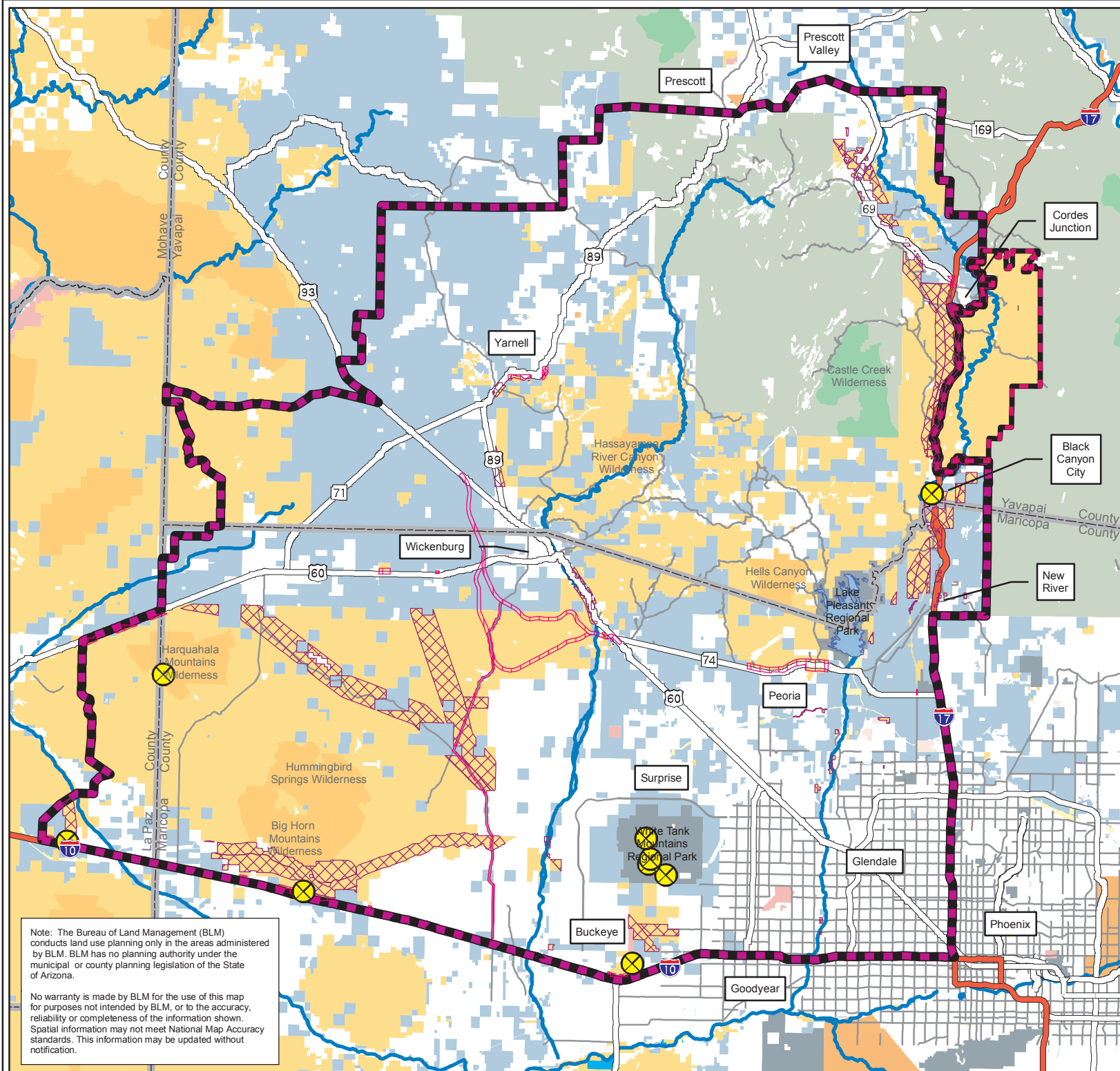
Note: Land Status legend located on Map 1-1

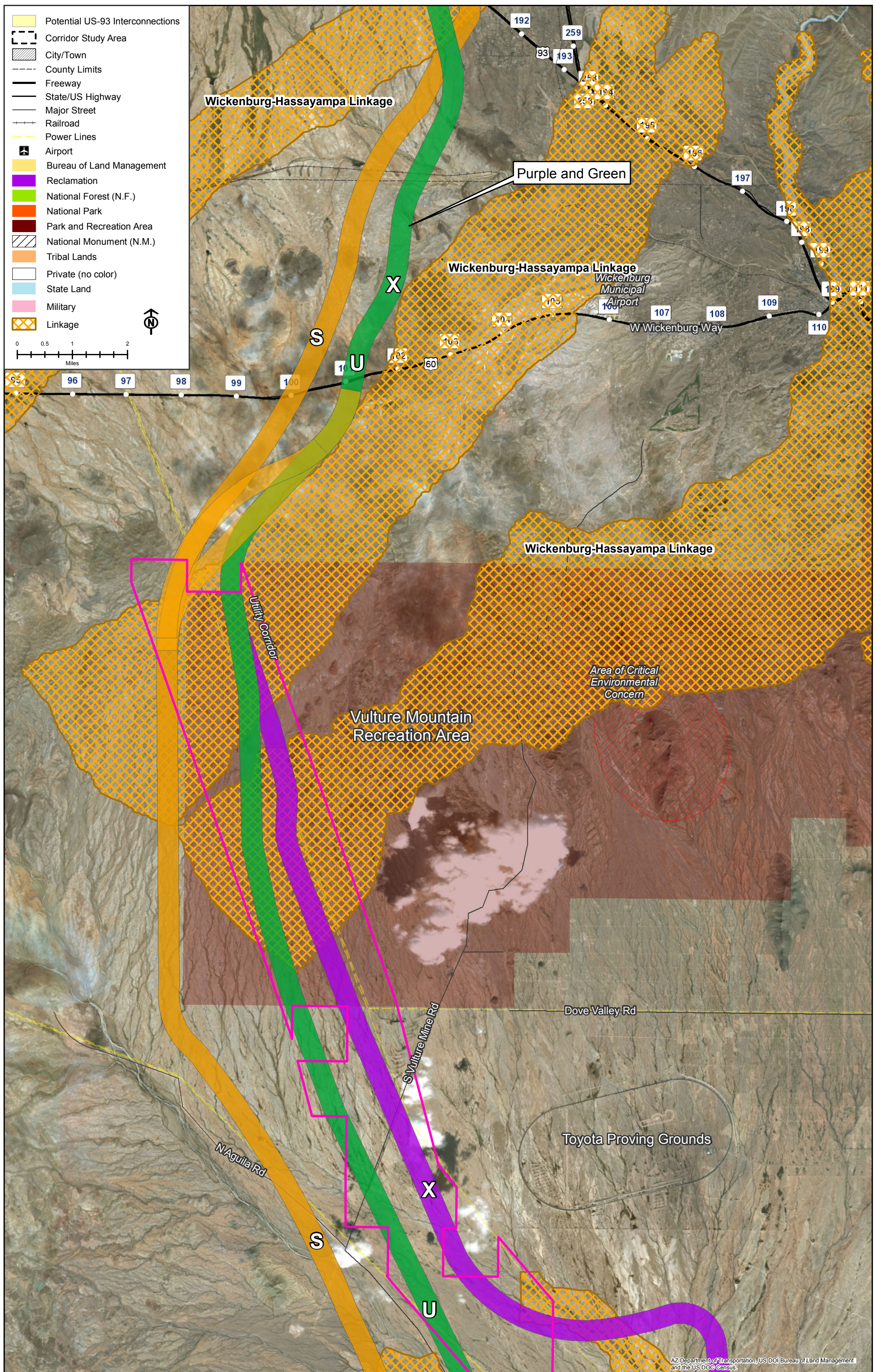


Bureau of Land Management
Phoenix District Office
Phoenix, AZ
October 2006

Note: The Bureau of Land Management (BLM) conducts land use planning only in the areas administered by BLM. BLM has no planning authority under the municipal or county planning legislation of the State of Arizona.

No warranty is made by BLM for the use of this map for purposes not intended by BLM, or to the accuracy, reliability or completeness of the information shown. Spatial information may not meet National Map Accuracy standards. This information may be updated without notification.







United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Phoenix District
Hassayampa Field Office
21605 North 7th Avenue
Phoenix, Arizona 85027
www.blm.gov/az/



May 12, 2017

In Reply Refer To:
1610 (P010)

Karla S. Petty
US Department of Transportation
Federal Highway Administration
4000 N Central Avenue, Suite 1500
Phoenix, AZ 85012-3500

Dear Ms. Petty:

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The BLM encourages you to eliminate alternative segments V and W because of their potential impact to access and recreation within the Vulture Mountains CRMA as well as the Vulture Mountains Area of Critical Environmental Concern, wildlife habitat, and other sensitive natural and cultural resources in the area.

I appreciate our cooperating agency relationship on this important project and look forward to continued cooperation between our agencies now and in future Tier 2 permitting. Please don't hesitate to reach out to me at rhawes@blm.gov or 623-580-5530, or the BLM's project manager, Lane Cowger at lcowger@blm.gov or 602-417-9612, with any inquiries about this correspondence or other needs.

Sincerely,



Rem Hawes
Field Manager

Cc: Rebecca Yedlin
USDOT Federal Highway Administration
4000 N Central Ave
Phoenix, AZ 85012-3500

Aryan Lirange
USDOT Federal Highway Administration
4000 N Central Ave
Phoenix, AZ 85012-3500

Lane Cowger, BLM AZSO, LLAZ9200



United States Department of the Interior

BUREAU OF RECLAMATION
Lower Colorado Region
Phoenix Area Office
6150 West Thunderbird Road
Glendale, AZ 85306-4001

IN REPLY REFER TO:
PXAO-1500
ENV-3.00

JUL - 8 2016

Interstate 11 Tier 1 EIS Study Team
c/o ADOT Communications
1665 West Jackson Street
Mail Drop 126F
Phoenix, AZ 85007

Subject: I-11 Corridor Tier One (1) Environmental Impact Statement (EIS) Scoping Comments

To Whom It May Concern:

The Bureau of Reclamation has reviewed the Federal Highway Administration (FHWA) and Arizona Department of Transportation's (ADOT) letter, dated May 23, 2016, requesting scoping comments and attended public meetings for the I-11 Corridor Tier 1 EIS. The following comments are provided for your consideration.

It is recommended that the EIS evaluate the potential impacts of the proposed I-11 corridor on Reclamation's wildlife and plant mitigation preserves, special-status species (including federally listed and Wildlife of Special Concern in Arizona), and migratory movement of wildlife.

Tucson Mitigation Corridor

The 2,514-acre Tucson Mitigation Corridor (Fig. 1) was established in 1990 for approximately \$4.4 million. The purchase and protection of these lands was a commitment made by Reclamation with the U.S. Fish and Wildlife Service (FWS) and the Arizona Game and Fish Department (AGFD) in the EIS for the Tucson Aqueduct. The Secretary of the Interior, Ms. Sally Jewell, signed a cooperative agreement to manage the property in accordance with the Master Management Plan, which prohibits any future development within the area other than existing wildlife habitat improvements or developments agreed to by Reclamation, AGFD, and FWS. This prohibition is intended to preserve habitat from urbanization while maintaining an open wildlife movement corridor. The property is also protected under Section 4(f) of the Department of Transportation Act of 1966, because it was "*acquired for mitigation purposes pursuant to the authority of the Fish and Wildlife Coordination Act, including general plan lands under Section 3(b) of that act*" (DOI 2014).

In order to maintain a functional wildlife movement corridor, Reclamation installed a series of seven Central Arizona Project (CAP) canal siphons for approximately \$3 million, which are concrete pipe sections that travel underneath desert washes. Wildlife frequently use desert washes as a means of migrating from one area to another. In March 2016, two desert bighorn sheep (*Ovis canadensis nelsoni*) were observed using one of the siphon crossings within the

Tucson Mitigation Corridor to migrate from the Ironwood National Monument to the Tucson Mountain District of Saguaro National Park. The construction of an I-11 travel corridor, either through the Tucson Mitigation Corridor or elsewhere within Avra Valley would have acted as a barrier that would have either severely restricted or prohibited their movement while also fragmenting habitat.

Reclamation has recorded 21 National Register eligible or unevaluated archaeological properties along the Central Arizona Project Canal (CAP) within the north and south ends of the I-11 study corridor. There are three eligible historic properties along the CAP in the northern end and 18 archaeological sites along the CAP in the southern portion. All historic properties are either Archaic or Hohokam prehistoric archaeological sites with some large villages located in the southern area. A few of the water oriented archaeological sites are considered Traditional Cultural Properties by southern Arizona Tribes.

Tumamoca Preserves

The tumamoc globeberry (*Tumamoca macdougallii*) is a cryptic perennial vine that was first listed as endangered on April 29, 1986. Suitable habitat and a large number of individuals were found along the proposed CAP canal route. In order to avoid a jeopardy decision Reclamation agreed to a number of conservation measures including the acquisition of approximately 181 acres to establish a preserve. The preserve is made up of seven parcels in Avra Valley that are close to the CAP canal alignment. As a result of that property acquisition and the discovery of additional populations in Mexico, the FWS delisted the tumamoc globeberry. The status of it may require reevaluation by the FWS if a portion of the preserve network is impacted by future development.

Hassayampa River Valley

The corridor study area passes through the Hassayampa River Valley between the Belmont and White Tank Mountains. Within that valley Reclamation has concerns about the impact it will have on local wildlife as it crosses the CAP canal. The canal is often a barrier to wildlife because of the limited ability different species have in crossing. As a result, the canal functions as a wildlife linkage by incidentally directing wildlife movement along its length. In order to help facilitate movement across the canal, Reclamation constructed and maintains 24 wildlife bridges that were strategically placed along its 336-mile length. Two of those bridges were placed between the Belmont Mountains and Hot Rock and Flatiron Mountains while a third was placed just north of the White Tank Mountain Regional Park (Fig. 2). The placement of I-11 within the valley will not only further fragment wildlife habitat and movement along the CAP canal, but it will reduce wildlife usage and access to the local wildlife bridges.

The Sonoran desert tortoise (*Gopherus morafkai*), a species cooperatively managed under the May 27, 2015, Candidate Conservation Agreement (CCA) has been documented north and south along the CAP canal within the Hassayampa River Valley. The construction of a new travel corridor through the Hassayampa River Valley would reduce tortoise access to nearby wildlife bridges. In order to minimize impacts to tortoises it is recommended that additional wildlife

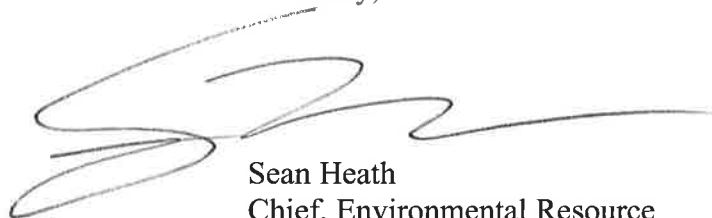
crossing structures across and along the CAP be built to facilitate their movement as mitigation. As signatories of the CCA, both Reclamation and ADOT agreed to incorporate project design features that minimized and maintained tortoise habitat connectivity. The need to maintain connectivity in this valley through the use of bridges and culverts has been discussed with FWS and AGFD and both agencies support this mitigation recommendation.

Reclamation recommends the EIS evaluate the following concerns:

- 1) Loss of the Tucson Mitigation Corridor as an essential component of a wildlife movement corridor and its impact on desert bighorn sheep movement and other wildlife.
- 2) Acquisition of other intact wildlife movement corridors as mitigation that would allow Reclamation to maintain its environmental commitments with the FWS and AGFD.
- 3) Incorporation of wildlife overpasses and culverts that would allow wildlife passage across the proposed I-11 in Avra Valley.
- 4) Incorporation of additional wildlife bridges over the CAP canal and culverts along it to maintain connectivity for tortoises and other wildlife in the Hassayampa River Valley.
- 5) Evaluation of the tumamoc globeberry if the Tumamoca Preserves are impacted by the placement of the I-11 corridor.
- 6) Impact of noise and lighting from I-11 on wildlife connectivity within the Tucson Mitigation Corridor, Avra Valley, and the Hassayampa River Valley.
- 7) The impact of prospective community growth and development associated with I-11 on wildlife and wildlife connectivity in Avra Valley, the Hassayampa River Valley, and the Tucson Mitigation Corridor.

Thank you for the opportunity to provide Scoping Comments on the I-11 Corridor Tier 1 EIS. We look forward to having the opportunity to review the EIS. If you have any questions, please contact me at 623-773-6250 or Mr. Tab Bommarito at 623-773-6255, or via email at tbommarito@usbr.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sean Heath', with a long horizontal flourish extending to the right.

Sean Heath
Chief, Environmental Resource
Management Division

References

Department of the Interior. (April 2014). Handbook on Departmental Review of Section 4(f) Evaluations at:

https://www.doi.gov/sites/doi.gov/files/migrated/pmb/oepr/nrm/upload/4f_handbook.pdf



MEETING PURPOSE: Cooperating Agency Coordination Meeting #1
DATE & TIME: Thursday, November 3, 2016, 1:00 PM (AZ Time)
LOCATION: ADOT Enforcement Office, 5th Floor Conference Room
 3838 N Central Avenue
 Phoenix, AZ

ATTENDEES: (*Participated via teleconference)
 Rebecca Yedlin, Aryan Lirange: Federal Highway Administration (FHWA)
 Jay Van Echo, Joanie Cady, Carlos Lopez*: Arizona Department of Transportation (ADOT)
 Dana Warnecke, Cheri Boucher*, Scott Sprague, Kristin Terpening*: Arizona Game and Fish
 Department (AGFD)
 Lane Cowger: US Bureau of Land Management (BLM)
 Clifton Meek*: US Environmental Protection Agency (USEPA)
 Don Swann*, Scott Stonum*: US National Park Service (NPS)
 Tab Bommarito, US Bureau of Reclamation (Reclamation)
 Bob Lehman*, US Fish and Wildlife Service (USFWS)
 Lisa Ives, Jennifer Pyne, Kimberly Bodington: AECOM

MEETING NOTES

Purpose:	
Monthly coordination meeting between the FHWA, ADOT, and Cooperating Agencies for the I-11 Corridor Alternatives Selection Report (ASR) and Tier 1 Environmental Impact Statement (EIS).	
Key Discussion Points/Action Items:	Responsible Party / Action Item
1. Introductions and Agenda Review Aryan Lirange, FHWA, Rebecca Yedlin, FHWA, and Jay Van Echo, ADOT, welcomed the group to the meeting.	No action.
2. Recap of Major Deliverable(s) The 30-day review of the draft Public Outreach and Agency Coordination Plan is complete. The project team has been following up with agencies that did not respond to be a Participating Agency or Section 106 Consulting Party and incorporating this into the plan (and Scoping Summary Report) accordingly. Once finalized, the Plan will be posted to the study website and an email with the link will be distributed to the agencies. Comments on the Scoping Summary Report were due Thursday, November 3, 2016. FHWA and ADOT are finalizing the report, and then will distribute to agencies by posting the report to the Study Website and emailing the link to agencies.	FHWA and ADOT to finalize follow-up with agencies that did not respond and post Plan to Study Website. FHWA and ADOT to finalize Scoping Summary Report and post to Study Website.
3. Current Major Deliverable(s) The Purpose and Need Memorandum is currently being reviewed by the FHWA legal department. The memorandum will be distributed to	FHWA and ADOT will distribute Purpose and Need

Purpose:	
Monthly coordination meeting between the FHWA, ADOT, and Cooperating Agencies for the I-11 Corridor Alternatives Selection Report (ASR) and Tier 1 Environmental Impact Statement (EIS).	
Key Discussion Points/Action Items:	Responsible Party / Action Item
the agencies in November, giving a 30-day comment period following the distribution.	Memorandum to agencies.
4. Next Major Deliverable(s) Jay Van Echo presented an overview of the Alternatives Selection Report Evaluation Methodology and Criteria for discussion purposes. The draft ASR Methodology and Criteria Report is currently being reviewed by ADOT and will be the next major deliverable distributed to the agencies following Purpose and Need.	No action at this time.
5. Upcoming Major Deliverables and Discussion Topics Aryan Lirange reported that the Alternatives Selection Report and Tier 1 EIS Annotated Outline and Methodology are the next major deliverables that will be distributed to the Cooperating Agencies in the coming months.	No action at this time.
6. Upcoming Agency and Public Outreach Jay Van Echo and Aryan Lirange discussed the upcoming agency and public outreach efforts for the ASR process. Key Milestone Agency Meetings are targeted for early 2017, along with a webinar for those who cannot attend in person. Public Information meetings will be held thereafter in early 2017.	FHWA and ADOT to hold Key Milestone Agency meetings and then Public Information meetings in early 2017.
7. Other Issues or Items Aryan Lirange and Tab Bommarito, Reclamation, discussed an issue that has evolved about clarifying legal language in the local and federal designation of land associated with the Tucson Mitigation Corridor. Appropriate agencies will hold a meeting Thursday, November 10, 2016 to identify correct designation, authority, and language.	Agencies to organize and hold meeting associated with Tucson Mitigation Corridor.
8. Next Meeting Date Jay Van Echo confirmed the next Cooperating Agency Coordination Meeting will be held on Wednesday, December 7, 2016 at 1 PM in Wickenburg, AZ.	No action.

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Attachments:

- (1) Sign In Sheet
- (2) Agenda

MEETING PURPOSE: BOR-FHWA-ADOT Agency Leadership Meeting
DATE & TIME: Monday, September 18, 2017, 1:00 PM (AZ Time)
LOCATION: BOR Large Conference Room
 6150 W. Thunderbird Road, Phoenix, AZ

ATTENDEES:

Tab Bommarito, Sean Heath, Eve Halper, Peter Castaneda, Alexander Smith: Bureau of Reclamation (BOR)

Karla Petty, Rebecca Yedlin, Aryan Lirange, Alan Hanson: Federal Highway Administration (FHWA)

Dallas Hammit, Carlos Lopez, Jay Van Echo, Greg Byres: Arizona Department of Transportation (ADOT)

MEETING NOTES

Purpose:	
I-11 agency leadership coordination meeting between the FHWA, ADOT, and Cooperating Agency BOR for the I-11 Corridor Alternatives Selection Report (ASR) and Tier 1 Environmental Impact Statement (EIS).	
Key Discussion Points/Action Items:	Responsible Party / Action Item
1. Introductions and Agenda Review Jay Van Echo, ADOT, welcomed the group to the meeting.	No Action
2. I-11 Project Status Jay Van Echo discussed the project status including NOI in May 2016; last 18 months completing scoping, agency coordination plan, draft Alternative Selection Report (ASR), and two rounds of public informational meetings. While the draft ASR is an ADOT report, it sets the stage to bring the 'universe of alternatives' to a reasonable range of alternatives to study in the draft EIS, our NEPA document. Jay mentioned that the nine (9) Cooperating Agencies have been meeting monthly and we have been functioning at a high level of cooperation and information sharing.	No Action

Purpose:	
I-11 agency leadership coordination meeting between the FHWA, ADOT, and Cooperating Agency BOR for the I-11 Corridor Alternatives Selection Report (ASR) and Tier 1 Environmental Impact Statement (EIS).	
Key Discussion Points/Action Items:	Responsible Party / Action Item
<p>3. Tucson Mitigation Corridor (TMC)</p> <p>4. Other Reclamation Properties in Study Area</p> <p>Aryan Lirange, FHWA discussed the summary of alternatives as affecting the TMC. Maps showing in blue the 2 alternatives developed by the team and shown to the public and the addition of a 'green' alternative adjacent to the CAP within the TMC boundaries.</p> <p>Alex mentioned that there are other CAP I-11 interfaces along the corridor in SoAZ (near tangerine Road siphon at I-10 and north of I-10 in the north section.</p> <p>Aryan discussed the 3 (2 blue and 1 green) alternatives in Avra Valley and the alternative that will include looking at the existing I-10 corridor through Tucson. The blue alternatives would be along the existing Sandario corridor, both within the existing 80- of right-of-way and an expanded version. Aryan displayed potential cross sections.</p> <p>Also looking to co-exist with existing facilities, hence the green alternative adjacent to the CAP.</p> <p>Alex mentioned that BOR has historically opposed to any development (as a response to co-existing with utilities) within the CAP right-of-way for purpose other than for the canal. Typically BOR does not like facilities parallel to the canal due to maintenance issues. And to limit development up to the canal. FHWA/ADOT acknowledges the BOR need for room to operate and maintain the canal system, and plan to locate I-11 corridor alternatives with enough offset that preserves the BOR needs.</p> <p>Tab discussed the Sonoran Institute meeting with BOR briefly and the opportunity to be adjacent to the canal pending environmental studies. He also mentioned that a simplistic point of view to be a good idea but how the wildlife uses it is a complex issue. i.e.: 90% of the mule deer use the TMC corridor and as such the BOR installed 7 siphons in this area. Tab mentioned that the parallel I-1 could reduce this TMC from 2-1/2 miles to 60-80 meters.</p> <p>Aryan questioned the 80 meters and Karla suggested that we are not that deep into design to look at final cross sections of parallel facilities. Jay also produced a sample 1st cut cross section to begin the conversation. Ultimately, the 60-80 meter width described above may be a miscommunication with the Sonoran Institute's understanding of what could be constructed by ADOT to ensure that all 7 siphon crossings are not reduced, and possibly enhanced.</p>	<p>BOR to have internal meeting and additional meeting(s) with TMC partners (AZG&F, USFW, and Pima County) to discuss opportunities.</p> <p>Letter of agreement between BOR and FHWA regarding Cooperating Agency co-planning and concurrence required prior to administrative Draft EIS.</p>

Purpose:	
I-11 agency leadership coordination meeting between the FHWA, ADOT, and Cooperating Agency BOR for the I-11 Corridor Alternatives Selection Report (ASR) and Tier 1 Environmental Impact Statement (EIS).	
Key Discussion Points/Action Items:	Responsible Party / Action Item
<p>Alex mentioned that BOR needs to coordinate with their tribal (TON) partner.</p> <p>Jay mentioned that FHWA and ADOT have had in-depth conversations with the TON and the local TON District regarding tribal lands and habitat connectivity.</p> <p>Aryan interjected that parallel routes with appropriate cross sections may even enhance connectivity with similarly located I-11 crossing near canal siphons.</p> <p>Alex noted that if Sandario Road along the 2-1/2 mile TMC could also be co-located with I-11 and the canal we could eliminate yet another linear facility and barrier to wildlife. Jay noted that the team can look at this if so directed. FHWA felt that a collocated facility with all three linear features has great merit.</p> <p>Alex asked how noise is addressed. Rebecca stated that the Tier 1 addresses noise (and air and other issues) at a tiered level more qualitative in the Tier 1 and the next phase as any Tier 2 would be more qualitative.</p> <p>Sean opened with 2 observations; one that a new interstate anywhere near the TMC would not be beneficial to the TMC and two, loss of habitat lands due to a new transportation facility would require mitigation.</p> <p>Aryan asked if mitigation would include requirement to supplant any I-11 lands with new habitat mitigation lands. Discussion then ensued into what and where these lands could be. All agreed that this could be part of the analysis, agreement, and EIS study.</p> <p>Aryan asked if bridging over the canal for habitat connectivity is easier than under. Aryan also pointed out pictures of crossings at other locations, discussed briefly ADOT's crossing installations at other locations. Pete mentioned that over or under are significant construction issues but can be accomplished.</p> <p>Alex mentioned that I-11 may impact the canal at other locations including near the Pima-Pinal county border along the Santa Rosa portion of the CAP and in the north section north of I-10 west of the White Tanks. Tab navigated google maps and conversations ensued. Jay and Pete discussed standard perpendicular crossings of the canal with linear transportation facilities can be accomplished fairly routinely.</p> <p>Pete also mentioned trail designations along the canal and that the ROW</p>	

Purpose:	
I-11 agency leadership coordination meeting between the FHWA, ADOT, and Cooperating Agency BOR for the I-11 Corridor Alternatives Selection Report (ASR) and Tier 1 Environmental Impact Statement (EIS).	
Key Discussion Points/Action Items:	Responsible Party / Action Item
<p>fence may not necessarily be the ROW boundary. I-11 will need to account for existing and future trail plans along the canal, especially in S AZ area.</p> <p>Karla and Rebecca discussed 'joint planning', 4(f) processes and considerations and the need to have a letter of agreement to further the green I-11 alternative adjacent to the canal in the TMC. If we have concurrence and co-planning with Cooperating Federal Agencies (FHWA and BOR) it may not be a 4(f) issue through use of the 4(f) exception. Collocating I-11 and the canal in lieu of being located along the western edge of the TMC (either completely within the existing 80' Sandario ROW and into the TMC boundaries depending on the EIS analysis may be a more prudent and feasible alternative. Additionally the analysis will include the alternative along the existing I-10 corridor through Tucson.</p> <p>Jay mentioned that 'time is of the essence' to have an agreement from BOR and their TMC partners to begin the analysis and the science to add the 'green' alternative to the 2 blue and the existing I-10 alternative analysis.</p> <p>Alex requested some time for BOR to meet internally and with their TMC partners to discuss all opportunities and constraints to co-planning and concurrence and report back to FHWA and ADOT.</p> <p>Jay described that the administrative Draft EIS is due in December 2017 with a DEIS to the public in the summer of 2018. Jay was questioned and asked if the recommended alternative is required for the administrative draft. He said no, but does need to be in the DEIS.</p> <p>Aryan followed up that the plan is to have a 'recommended' alternative in the DEIS, a 'preferred' in the FEIS and a "Selected" Alternative in the ROD. Since the bifurcation of the FEIS and ROD, we have the opportunity to go from recommended to preferred to selected and vet with all (cooperating, participating and the public) several times.</p>	
5. Other Issues or Items: Aryan Lirange asked the group if anyone had any other issues or items to discuss. There were none.	No Action
6. Next Meeting Date: Aryan Lirange confirmed that another TMC specific meeting may be required and suggested after we hear back from BOR for Jay and ADOT's consultant to arrange.	Jay and ADOT will send out necessary meeting invites.

cc: Document Control

Attachments:

(1) Sign-in Sheet

Meeting Purpose: Tier 1 EIS - Cooperating Agency Meeting

Location: ADOT Enforcement

Date: 8/2/17 Time: 1:00 pm

SIGN-IN SHEET

Name	Organization	Phone	E-mail	Address
<u>Jeanyne</u>				
<u>Kimberly Bodington</u>	<u>ACCOM</u>	<u>602. 048.2580</u>		
<u>Ann Richards-Fruije</u>	<u>ACCOM</u>	<u>602-648-2498</u>		
<u>Katie Rodriguez</u>	<u>ADOT</u>	<u>602-712-8858</u>	<u>KRodriguez@adot.gov</u>	
<u>Aryon LIRANGE</u>	<u>FWA</u>	<u>602 382 8973</u>		
<u>Rebecca Yedlin</u>	<u>FWA</u>	<u>602.382.8979</u>	<u>rebecca.yedlin@dot.gov</u>	
<u>Jay W. Edla</u>	<u>ADOT</u>	<u>5204006807</u>	<u>jwanelo@adot.gov</u>	
<u>Lane Canger</u>	<u>BLM</u>	<u>602479612</u>	<u>lcanger@blm.gov</u>	
<u>GREG BYRES</u>	<u>ADOT</u>	<u>602-712-8140</u>	<u>gbyres@adot.gov</u>	

SIGN-IN SHEET

Name	Organization	Phone	E-mail	Address
✓ <u>Phone Callers:</u>				
✓ Tab Bowmanito	BOR			
✓ Charí Bencheá	ACFD			
✓ Clifton Meek	EPA			
✓ Scott Stonum	NPS			
✓ Scott ^{Adam} Spraggner	"			
✓ Jarea Raymond	FAR			
✓ Krista Terpening	ACFD			
Scott Sprague	NPS			
✓ Julie	ACFD			
✓ Bill Knowles	ACFD			

MEETING PURPOSE: Bureau of Reclamation (BOR), Tucson Mitigation Corridor

DATE & TIME: March 5th, 2018 at 1pm

LOCATION: FHWA Arizona Office

ATTENDEES: Karla Petty, FHWA
 Alan Hansen, FHWA
 Aryan Lirange, FHWA
 Rebecca Yedlin, FHWA
 Anthony Sarhan, FHWA
 Alex Smith, BOR
 Sean Heath, BOR
 Greg Byres, ADOT
 Jay Van Echo, ADOT
 Carlos Lopez, ADOT

MEETING NOTES

Purpose:	
I-11 Tier 1 Environmental Impact Statement (EIS) and BOR discussion of study process, issues and concerns, and opportunities related to the Tucson Mitigation Corridor	
Key Discussion Points/Action Items:	Responsible Party / Action Item
1. Introductions led by Aryan Lirange, FHWA. Aryan presented the I-11 Alternatives near the Tucson Mitigation Corridor, Alternatives 1 to 6.	
2. BOR explained they need to coordinate the alternatives (Alternatives 1 to Alternative 6) near the TMC with the Central Arizona Project (CAP) operator, Central Arizona Water Conservation District (CAWCD).	
3. BOR's preference is to combine Sandario Rd, CAP and Interstate 11 and matching the existing siphons and maintaining wildlife connectivity. Since the timeline of I-11 is unknown and land uses may change over time keep alternatives flexible for future accommodation.	

Purpose:	
I-11 Tier 1 Environmental Impact Statement (EIS) and BOR discussion of study process, issues and concerns, and opportunities related to the Tucson Mitigation Corridor	
Key Discussion Points/Action Items:	Responsible Party / Action Item
4. BOR explained that adding a crossing (siphon) may not be needed.	
<p>5. An area of concern for BOR is wildlife connectivity between the Tucson Mountains and Ironwood Forest National Monument. Given uncertainty BOR suggested having a general description of a “wildlife corridor.”</p> <p>At the tier 1 study level, FHWA and ADOT are not able to identify specific wildlife corridor location but can describe wildlife corridor that fits Net Benefit program and is in line with the purpose of the TMC. Subsequent project specific environmental studies would identify specific locations.</p>	
6. The TMC managing agencies (BOR, Pima County, Arizona Game and Fish Department, US Fish and Wildlife Service) are meeting on March 26, 2018 along with FHWA and ADOT to coordinate on the Net Benefit program and define the criteria that will be used for wildlife crossing locations and attributes to be used in subsequent tier 2 environmental studies.	
<p>7. BOR anticipates providing a letter discussing the Net Benefit Program and tier 2 considerations to FHWA following the meeting with the TMC managing agencies on March 26, 2018.</p> <p>BOR suggestions on Net Benefit included matching the existing siphons along CAP, wildlife crossing north of TMC, consolidation of Sandario Road and identification of future environmental studies including biology.</p>	
Next Meeting Date: TBD	

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Attachments:



United States Department of the Interior

BUREAU OF RECLAMATION

Lower Colorado Region
Phoenix Area Office
6150 West Thunderbird Road
Glendale, AZ 85306-4001

IN REPLY REFER TO:

PXAO-1500
2.1.4.13

JUN 08 2018

Ms. Karla Petty
Division Administrator
Federal Highway Administration
4000 North Central Avenue, Suite No. 1500
Phoenix, AZ 85012

Subject: Section 4(f) Evaluation for the Tucson Mitigation Corridor

Dear Ms. Petty:

This letter is in response to the Federal Highway Administration's (FHWA) request for the Bureau of Reclamation's input and consultation on a Section 4(f) evaluation for the Tucson Mitigation Corridor (TMC). The Section 4(f) evaluation is part of the Interstate 11 (I-11) Tier 1 Environmental Impact Statement (EIS) from Nogales to Wickenburg. Among the alternatives are two prospective alignments within Avra Valley that would fragment, and substantially impact the TMC, and the role it serves.

The 2,514-acre TMC was established in 1990 for a present-day cost of approximately \$15 million. It was acquired as mitigation for the construction of the Tucson Aqueduct of the Central Arizona Project (CAP) canal. Additionally, Reclamation modified the designs of the CAP placing a substantial portion within underground siphons. This modification was intended to increase wildlife movement in Avra Valley, but came at a significant cost. Reclamation has long considered and managed the TMC, as a wildlife refuge of significance, because of the critical role it serves for maintaining wildlife connectivity from the isolated Tucson Mountain Park, and Saguaro National Park across Avra Valley, to the Ironwood Forest National Monument, Roskrige Mountains, and adjacent areas. In 1990, Reclamation entered into a Cooperative Agreement (CA) with Pima County, Arizona Game and Fish Department (AGFD), and U.S. Fish and Wildlife Service (USFWS), for management and oversight of the TMC (hereafter collectively referred to as the TMC Working Group). Within the CA it states: "lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)]." The existing Master Management Plan also prohibits any future developments within the TMC, other than wildlife habitat improvements.

Following a September 18, 2017 meeting, Reclamation worked to develop a Preliminary Mitigation and Minimization Plan for an I-11 route alternative through the TMC. The TMC Working Group will continue to coordinate and review information as both Tiers of the EIS

progress. Through the Tier 1 process, members of the TMC Working Group will continue to review draft and final documents. Prior to, and during, the Tier 2 process, the TMC Working Group will develop a scope of work for proposed wildlife studies, and continue to participate in the EIS review process.

To use a Section 4(f) property such as the TMC, the FHWA is traditionally required to determine that: 1. there is no "feasible and prudent avoidance alternative" to the use of the 4(f) property; and that 2. the action includes all possible planning to minimize harm to the property resulting from such use (23 CFR § 774.3.). We understand that FHWA is proposing to apply the Nationwide Programmatic Section 4(f) Evaluation and Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property. According to the FHWA Environmental Toolkit:

"A "net benefit" is achieved when the transportation use, the measures to minimize harm and the mitigation incorporated into the project results in an overall enhancement of the Section 4(f) property when compared to both the future do-nothing or avoidance alternatives and the present condition of the Section 4(f) property, considering the activities, features and attributes that qualify the property for Section 4(f) protection. A project does not achieve a "net benefit" if it will result in a substantial diminishment of the function or value that made the property eligible for Section 4(f) protection."

As part of the NEPA process, impact analysis and potential mitigation measures for an Avra Valley alternative will need to be identified. If one of the proposed alignments within the TMC is selected, mitigation and minimization of impacts will be needed to achieve a net benefit. Therefore, we recommend a process as part of the Tier 1 EIS that commits to the implementation of wildlife studies to identify and develop mitigation and conservation measures necessary to reach a net benefit. This process will continue through the Tier 2 process where those mitigation and conservation measures will be identified to ensure there is an overall enhancement of the features and values of the TMC.

For an I-11 alignment through the TMC, we recommend it temporarily parallel the CAP canal, and allow for the placement of concurrent wildlife crossings that match up with each of the existing siphon crossings. As part of this parallel alignment, North Sandario Road should be realigned with the I-11 alignment so that all wildlife structures (over and under to be determined during the Tier 2 process) cross both roads. Having North Sandario Road closely aligned with I-11 avoids greater fragmentation of wildlife crossing areas. Developing a termination point on the existing North Sandario Road will prevent through traffic, but ensure local access is maintained. The abandoned portion of the existing Sandario Road would be removed, and reclaimed by native habitat. This concept would create a cul-de-sac, and remove a section of the existing North Sandario Road, which will eliminate a barrier to wildlife movement that exists today.

Before effective mitigation can be designed, studies to understand east-west wildlife movement needs within Avra Valley should be conducted. These studies should gather baseline wildlife data, including evaluation of historic and current movement data, and surveys of existing populations. Using the baseline data, the studies should next identify the extent, location, requirements, target species, expected benefits, etc., of additional wildlife movement corridor(s) and supporting structures. To provide a net benefit this should focus on corridor(s) that enhance the features and values of the TMC, including providing a complete path for east-west wildlife movement from Saguaro National Park and Tucson Mountain Park, to the Ironwood Forest National Monument, Roskrige Mountains, and adjacent areas. Finally, the studies should identify an approach for perpetual management and protection of any acquired lands, as well as any adaptive management thresholds and likely actions. Identification of the entity responsible for future management, and agreements with the entity, would occur during the Tier 2 process.

These studies shall be developed and completed, in coordination with Reclamation, prior to the Tier 2 EIS, to ensure adequate data is available for that process. AGFD and USFWS, as recognized authorities on wildlife, with coordination and input from the TMC Working Group, should use these studies to identify the Tier 2 preferred wildlife corridor location and design. FHWA and the Arizona Department of Transportation (ADOT) would consult with the TMC Working Group to develop the recommended approach, prior to Reclamation's concurrence on a Tier 2 final Net Benefit Programmatic determination.

Based on this proposed process to identify, evaluate, and implement potential mitigation measures, Reclamation believes that a net benefit could be achieved, and Reclamation would concur with the application of the Net Benefit Programmatic Evaluation to the TMC. When appropriate, we look forward to reviewing the 4(f) Programmatic Evaluation report.

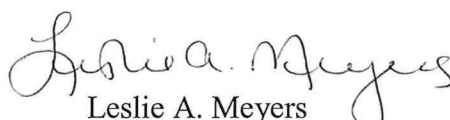
Reclamation also has the Tumamoca Preserves, which Reclamation understands FHWA and ADOT plan on avoiding. If this decision changes please notify us so we may review the proposal. In order to avoid a jeopardy decision on the tumamoc globeberry (*Tumamoca macdougallii*) for the Tucson aqueduct of the CAP canal, Reclamation acquired approximately 181 acres to establish preserves. The preserves are made up of seven parcels in Avra Valley, with some extremely close to the proposed I-11 alignment.

Reclamation and the Central Arizona Water Conservation District (CAWCD) have design standards for facilities that encroach on CAP lands. These design standards protect the CAP facilities, and the ability to perform Operation and Maintenance of project facilities. As I-11 reaches the design phase, please coordinate with CAWCD, and Reclamation on the applicable design standards.

Thank you for the opportunity to provide comments and propose a path forward to minimize impacts to the TMC, and the features and values for which the property was established. Reclamation personnel would like to meet with you to clarify any of our recommendations, and

further assist the FHWA and ADOT with identification of appropriate measures for the benefit of wildlife. We look forward to having the opportunity to work with the FHWA and ADOT. If you have any questions, please contact Leslie Meyers, Area Manager, at 623-773-6218, or via email at lmeyers@usbr.gov. Additionally, you may contact Mr. Sean Heath, Manager, Environmental Resources Management Division, at 623-773-6250, or via email at sheath@usbr.gov.

Sincerely,


Leslie A. Meyers
Area Manager

cc: Acting Field Supervisor,
U.S. Fish and Wildlife Service
9828 North 31st Avenue No. C3
Phoenix, Arizona 85051-2517

Ty Gray
Director
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000

C. H. Huckelberry
County Administrator
Pima County
Pima County Governmental Center
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GAME AND FISH DEPARTMENT

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LARRY D. VOYLES

DEPUTY DIRECTOR

TY E. GRAY



July 8, 2016

Rebecca Yedlin
FHWA Environmental Coordinator
Federal Highway Administration
4000 N. Central Ave., Suite 1500
Phoenix, AZ 85012

Re: AGFD Initial Scoping Comments for the I-11 Alternatives Selection Report and Tier I Environmental Impact Statement

Dear Ms. Yedlin:

The Arizona Game and Fish Department (Department) reviewed the Federal Highway Administration (FHWA) letter, dated May 26, 2016, requesting feedback as part of Arizona Department of Transportation's (ADOT's) initial project scoping for the Tier I Environmental Impact Statement (EIS) process for the I-11 Corridor. The Alternatives Selection Report (ASR) and Tier 1 EIS will build upon the prior I-11 and Intermountain West Corridor Study (IWCS) completed in 2014, which was a multimodal planning effort that involved ADOT, the Nevada Department of Transportation (NDOT), FHWA, Federal Railroad Administration (FRA), Maricopa Association of Governments (MAG), Regional Transportation Commission of Southern Nevada (RTC), and other key stakeholders. The I-11 Corridor was identified as a critical piece of multimodal infrastructure that would diversify, support, and connect the economies of Arizona and Nevada. It also could be connected to a larger north-south transportation corridor, linking Mexico and Canada.

The Department appreciates this opportunity to provide preliminary scoping comments regarding the potential impacts to wildlife, wildlife habitat, and wildlife related recreation along the I-11 study corridor. In addition to identifying potential impacts to sensitive resources along the corridor alternatives, we have also identified potential data needs and mitigation opportunities for your consideration. Our comments below are in addition to comments previously provided at the pre-scoping meeting on April 21, 2016, and comments provided during the prior I-11 and Intermountain West Corridor Study.

The Department, having jurisdictional authority and state trust responsibility under Title 17 of the Arizona Revised Statutes for the management of Arizona's wildlife resources, respectfully requests Cooperating Agency status during the I-11 Tier I NEPA process. As a Cooperating Agency, the Department will provide expertise in identifying potentially affected resources,

evaluating impacts, and developing alternatives and mitigation strategies for the Project. Specifically, due to the Department's expertise in, and understanding of, Arizona's wildlife and wildlife related issues such as habitat connectivity, the Department is in a unique position to coordinate with the FHWA and the ADOT regarding potential effects, as well as avoidance and minimization opportunities, for wildlife and habitat connectivity. In accordance with Title 40 Code of Federal Regulation (CFR) 1501.6 and 23 CFR 771.111(d), this unique expertise, coupled with the Department's regulatory authority over Arizona's wildlife and wildlife resources, meets the criteria for Cooperating Agency status.

Additionally, as soon as the alignments to be analyzed in the ASR and the Tier I EIS have been identified, the Department requests shapefiles of the alignments, in order to provide additional detail to FHWA and ADOT regarding wildlife, wildlife habitat, and wildlife-related recreation resources along the alternative alignments.

GENERAL COMMENTS RELATING TO THE ENTIRE STUDY AREA

Wildlife Movement

Transportation infrastructure compromises the natural movement of mammals, reptiles, and amphibians, and to some extent birds. The barrier effect on wildlife results from a combination of disturbance and avoidance effects, physical hindrances, and traffic mortality that all reduce the amount of movement across the barrier (Forman and Alexander 1998; Trombulak and Frissel 2000; Jaeger and Fahrig 2001; Carr *et al.* 2002). The I-11 corridor will be a significant part of a larger transportation network that contributes to overall statewide fragmentation, degradation, isolation, mortality and barrier effects on wildlife, wildlife populations and wildlife habitats. Therefore, individual infrastructure projects, including the eventual I-11 Segments of Independent Utility (SIU), should be evaluated at a landscape scale, considering their contributions to the cumulative impacts of a larger infrastructure network. This evaluation should occur at both the Tier I and Tier II levels of NEPA analysis for I-11. Additionally, ensuring the safe and effective movement of wildlife through the I-11 Corridor also improves the safety of the roadway itself, by reducing the likelihood of wildlife-vehicle interactions and accidents.

- Throughout the I-11 Corridor, the Department urges FHWA and ADOT to analyze and employ existing transportation facilities to the greatest degree feasible, in order to limit the significant impacts to resources along new transportation facilities.
- In order to adequately evaluate wildlife movement within the I-11 corridor, studies should be conducted to gather empirical movement data of target wildlife species across any proposed alignments that would be fully evaluated under NEPA. Ideally, the studies should be conducted prior to any Tier II level evaluation, so the data can be incorporated into the refined Tier II analysis. In addition to pre-construction surveys, the Department recommends collection of movement data for target species during and for at least four years following construction, and considers this an essential component of any mitigation strategy. Therefore, the Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to conduct future wildlife movement and habitat use studies in conjunction with any Tier II level efforts. These studies should include at a minimum, GPS telemetry studies of collared animals, wildlife mortality (i.e. roadkill) and tracking

surveys, analysis of existing and collected movement data, and examination of traffic data in conjunction with these studies. These studies should be used to help inform the design and siting of comprehensive measures to mitigate and minimize barrier effects to wildlife, including but not limited to crossing structures. Additional methods using camera traps, scat surveys, various small mammal traps or herpetological arrays could be used to examine biodiversity and local wildlife distribution patterns, in conjunction with movement data.

- A comprehensive network of crossing structures including overpasses, underpasses, culverts, funnel fencing, and other components should be included from the initial design stages. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with AGFD on the overall siting and design of roadway construction and/or expansions, including crossing structures, as the Tier II level efforts progress.
- Preliminary wildlife linkages were identified by the Department, in collaboration with Northern Arizona University (NAU), in 2007-2008. Since the linkages were identified, understanding of connectivity and methodologies to identify corridors have improved. Therefore, these linkages are just starting points when looking at connectivity issues for a specific area, and are not a substitute for coordinating with the Department regarding the critical connectivity issues along the I-11 Corridor. However, each linkage report contains biological information related to that particular linkage area; the Department recommends incorporating relevant information from the reports into the Tier I DEIS. Reports can be found at:
<http://corridordesign.org/linkages/arizona>
- In addition to maintaining and/or improving permeability for wildlife along any proposed alignments, maintaining and/or improving permeability of nearby barriers, such as the Central Arizona Project (CAP) canal system, is critical to addressing the I-11 Corridor's cumulative impacts to wildlife movement. The Department urges FHWA and ADOT to work closely with Bureau of Reclamation (BOR) to identify opportunities for creating new, and enhancing existing, wildlife crossing structures over the CAP and other canals within and adjacent to the I-11 Corridor. Future mitigation structures on the CAP and other adjacent barriers should trigger inclusion of complementary features in the design of any I-11 alignments carried forward. This coordination is critical when examining cumulative impacts of the I-11 Corridor.

Wildlife

Several species that are federally listed under the Endangered Species Act (ESA), as well as their proposed and designated critical habitats, occur within the I-11 Corridor Study Area, including the jaguar (*Panthera onca*), ocelot (*Leopardus pardalis*), lesser long-nosed bat (*Leptonycteris curasoae yerbabuenae*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus*), Mexican spotted owl (*Strix occidentalis lucida*), Yuma Ridgeway's rail (*Rallus obsoletus yumanensis*), Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*), Chiricahua leopard frog (*Lithobates chiricahuensis*), Gila topminnow (*Poeciliopsis occidentalis occidentalis*) and Northern Mexican gartersnake (*Thamnophis eques megalops*). Additionally, the Sonoran desert tortoise (*Gopherus morafkai*), which is protected

under a Candidate Conservation Agreement, of which ADOT is a signatory, occurs within much of the study area.

Arizona's State Wildlife Action Plan (SWAP) provides a comprehensive vision for managing Arizona's fish, wildlife and wildlife habitats. The SWAP identifies the Species of Greatest Conservation Need (SGCN) and Species of Economic and Recreation Importance (SERI) for the State of Arizona.

- The Department recommends that potential impacts to, as well as appropriate avoidance and minimization measures for federally listed and state trust species be addressed in the upcoming NEPA analysis at an appropriate level of detail for a Tier I analysis, i.e. focusing on the siting of the alignments. The Arizona Online Environmental Review Tool Report (attached) identifies known occurrences of special status species in the project vicinity, as well as SGCN and SERI predicted within the project vicinity based on species range models.

Wildlife Habitat

It is the Department's policy to seek compensation at a 100% level, when feasible, for actual or potential habitat losses resulting from land and water projects (Department Policy I2.3).

- The Department recommends that all impacts to habitat be mitigated in-kind (i.e. impacts to Sonoran Desert scrub habitat should be mitigated with Sonoran Desert scrub habitat), through a combination of on-site impact avoidance and/or minimization when feasible, and off-site preservation, creation, or compensation.

In addition to the typical effects to wildlife movement discussed above, pollution by toxins, nutrients, and noise from the transportation corridor can create edge effects on adjacent hydrology and microclimate, reducing the suitability of the remaining habitats (Garland and Bradley 1984; Thompson *et al.* 1986; Lytle *et al.* 1995; Murcia 1995; Reijnen *et al.* 1995; Boarman and Sazaki 2006; Eigenbrod *et al.* 2009; Parris and Schneider 2009). These indirect effects spread into the surrounding landscape and contribute to the loss and degradation of natural habitat several times larger than the area of the road footprint itself. The indirect effects are influenced by road and traffic characteristics, landscape topography and hydrology, wind, and vegetation. In addition, the consequent impacts on wildlife and ecosystems also depend on the sensitivity of the species in the vicinity.

- Opportunities exist to minimize new edge effects. These include:
 - Constructing new or expanded roads along existing infrastructure, instead of creating new infrastructure corridors. The Department urges FHWA and ADOT to consider and exhaust these opportunities to minimize edge effects when identifying and analyzing potential alignments.
 - Building walls to deflect noise and light disturbances away from otherwise quality habitat..
 - Designing lighting to illuminate the roadway and not the night sky or adjacent habitat.

Wildlife-Related Recreation

Several local, state, and federal parks/open space areas occur within the I-11 Corridor study area, such as Saguaro National Park, the Sonoran Desert National Monument (SDNM), the proposed Vulture Mountains Cooperative Recreation Management Area (VMCRMA), the White Tank Mountains Regional Park, Estrella Mountain Regional Park, and numerous Department owned/managed Wildlife Areas. These designated areas, riparian corridors, and other large undeveloped blocks of habitat within the I-11 Corridor, provide high quality wildlife habitat and related recreation opportunities (hiking, wildlife viewing, hunting, angling, etc.) for residents and tourists alike. A large Interstate/Multi-Modal transportation corridor may fragment and degrade these open space recreation areas, and also significantly restrict public access to adjacent recreation. Maintaining access to wildlife recreation opportunities throughout the I-11 Corridor is imperative. Throughout the I-11 Corridor:

- FHWA and ADOT should utilize transportation facilities to the greatest degree feasible thereby minimizing impacts to resources along new transportation facilities.
- FHWA and ADOT should closely examine the effects of each alignment on recreation in the vicinity, and identify opportunities to maintain and/or improve recreational access to open spaces.
- As the potential alignments are identified, FHWA and ADOT should coordinate with the Department to obtain greater detail on wildlife-related recreation. Additionally, the Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with the Department on potential impacts to wildlife-related recreation and recreational access, during all Tier II analysis.

NORTH (BUCKEYE TO WICKENBURG):

The Department considers an Interstate/Multi-Modal corridor to be incompatible with a county, state, or federal park/recreation area, including the proposed Vulture Mountains Cooperative Recreation Management Area (VMCRMA). The VMCRMA provides habitat for stable populations of Sonoran desert tortoise. The key objective for management of the Sonoran desert tortoise is limiting any decline of tortoise habitat and populations (Maricopa County 2012). The Vulture Mountains are also important habitat for nesting raptors, as reflected by the Bureau of Land Management's (BLM's) Area of Critical Environmental Concern (ACEC); the cliffs along the crest of Vulture and Caballeros Peaks provide the only suitable nesting cliffs for many miles (Maricopa County 2012). Nesting raptors are sensitive to noise and construction. If the cliffs and surrounding area are not protected from these activities, cliff-nesting raptors could disappear from much of the area (BLM 2010 as cited in Maricopa County 2012). Additionally, the Vulture Mountains provide a critical stepping stone for wildlife to move between the adjacent Wickenburg Mountains to the east, and the Big Horn and Harquahala Mountains to the west; this linkage system is the Wickenburg-Hassayampa Linkage.

The Vulture Mountains are a popular area for outdoor recreation, including hunting and wildlife viewing (Maricopa County 2012). It is expected that recreational use of the area will increase as the population in the surrounding area grows. This recreational activity is not only important for the quality of life of residents and visitors, but is also important to the local and regional

economy. As a result, the value of the Vulture Mountains as a location for outdoor recreational opportunities will increase. An interstate will significantly decrease recreational opportunities in the proposed park and the region; a multi-modal corridor could substantially limit recreational access even more if access is not considered in the design.

- Given the importance of the Vulture Mountains and the proposed VMCRMA to wildlife and recreation, the Department urges FHWA and ADOT to avoid further fragmentation of the Vulture Mountains. Although Vulture Mine Road bisects the mountains currently, it is a two lane road that acts as a much smaller barrier to wildlife and recreation access than an Interstate/Multi-Modal transportation corridor would. Additionally, the edge effects from an Interstate/Multi-Modal corridor would extend much farther into the adjacent habitat than the current roadside disturbance. Therefore, the Department recommends that any routes passing through Vulture Mountain, such as Vulture Mine Road, not be considered as a viable alignment for the Interstate/Multi-Modal I-11 Corridor.
- Any alignment running west of the Vulture Mountains would further isolate these Mountains from the nearby Big Horn and Harquahala ranges. As discussed in the General Comments, studies should be conducted to gather empirical movement data of target wildlife species across any proposed alignment running west of the Vulture Mountains. Therefore, the Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to conduct future wildlife movement studies in conjunction with any Tier II level efforts.
- A comprehensive network of crossing structures including overpasses, underpasses, culverts, funnel fencing, and other components should be included from the initial design stages. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with AGFD on the overall siting and design of roadway construction and/or expansions as the Tier II level efforts progress.

The Hassayampa River Preserve is situated immediately adjacent (and parallel to) the US 60, between the Vulture and Wickenburg Mountains. It is host to a multitude of resident and migratory avian species, including the federally endangered southwestern willow flycatcher and the federally threatened yellow-billed cuckoo, as well as their designated and proposed critical habitats, respectively. Expansion of the existing US 60 highway into an Interstate/Multi-Modal corridor will increase edge effects to the Hassayampa River Preserve, and could result in long-term hydrological impacts to the river channel and water quality, as well as riparian habitat loss, depending on the siting and design of an Interstate highway through this area. It is the policy of the Arizona Game and Fish Commission that the Department recognizes riparian habitats as areas of critical environmental importance to wildlife and fisheries; and to maintain, restore and protect riparian habitat and stream flows (Commission Policy A2.13).

- The Department urges FHWA and ADOT to avoid all impacts to this significant wildlife habitat area and to protect existing functions and values. Any alignment along the US 60, adjacent to the Hassayampa River Preserve, must expand northeast away from the Preserve.

As previously discussed, the area along the Hassayampa River Preserve has been identified as an important wildlife linkage area (Wickenburg-Hassayampa Linkage).

- It is imperative that no decrease in permeability for wildlife across the US 60 (connecting the Vulture Mountains to the Wickenburg Mountains) occurs within this linkage. Instead, design opportunities to improve movement for wildlife across the roadway/alignment should be an integral component of the Interstate/Multi-Modal corridor design. A comprehensive network of crossing structures including overpasses, underpasses, culverts, funnel fencing, and other components should be included from the initial design stages. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with AGFD on the overall siting and design of roadway construction and/or expansions as the Tier II level efforts progress.

The Department has been engaged with the cities of Buckeye and Surprise for several years on urban development and open space planning. The overall goal of that coordination is to preserve undeveloped linkages between the White Tank Mountains, Hassayampa River Corridor, Belmont/Bighorn Mountains and Vulture Mountains; and to conserve the biodiversity and ecological integrity of the White Tank Mountains. The White Tank Mountain Regional Park and the Skyline Regional Park encompass the White Tanks mountain range and are important open space and wildlife-related recreation destinations for west valley communities. The Department has used mule deer telemetry data and linkage modeling to develop linkage design recommendations and conceptual plans to inform land use planning in the area. The City of Surprise has adopted a portion of the linkage design into their General Land Use plan as a conservation element. More recently, the City of Buckeye has initiated work with the newly established White Tank Mountain Conservancy (WTMC) to establish public/private partnerships towards long-term conservation solutions for the White Tank Mountain connectivity goals.

- Any roadway in the Hassayampa River Valley (between the Belmont/Bighorn Mountains and the White Tank Mountains) will result in the further isolation of the White Tank Mountains and fragmentation of habitat. The Department urges FHWA and ADOT to limit further habitat fragmentation by maximizing use of the existing roadways or roadway segments such as Wickenburg Road or Sun Valley Parkway.
- West Valley governments and conservation partners have worked closely with the Department to identify wildlife movement corridors and habitat linkages that are critical to help minimize the isolation of the White Tank Mountains. The Department strongly recommends FHWA and ADOT consider these movement corridors in the siting of potential routes during the Tier I NEPA evaluation, as well as during the development and design associated with Tier II. We recommend additional coordination with the Department, WTMC, Buckeye and Surprise to familiarize FHWA and ADOT with local conservation efforts and alternative solutions that these organizations and their stakeholders are pursuing.
- As discussed in the General Comments above, the Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to conduct future wildlife studies in conjunction with any Tier II level efforts. The Department recommends Sonoran desert tortoise, mule deer, and mountain lion as focal species of movement studies in this area. In addition to the methodologies recommended in the General Comments section,

incorporation and analysis of data the Department has collected is essential; this data includes wildlife research/observation data through this area such as a reptile roadkill study that encompassed Sun Valley Parkway, a mule deer telemetry study, a mountain lion telemetry study.

CENTRAL (CASA GRANDE TO BUCKEYE):

The Gila River, as it passes through the Central Study Area, is host to large numbers of waterfowl and other migratory bird species; so much so that this entire stretch of the Gila River has been designated an Important Bird Area by the National Audubon Society. In addition to the avian species that inhabit the area, other key wildlife species such as desert bighorn sheep, javelina, mule deer, bobcat, Sonoran desert tortoise, and other common desert dwellers inhabit the adjacent Buckeye Hills. These species and their local populations range west across the Gila River into the Gila Bend Mountains, and east across Rainbow Valley into the Estrella and Maricopa Mountains. The Department owns and/or manages multiple Wildlife Areas along the Gila River, including but not limited to, the Arlington, Powers Butte, and Robbins Butte Wildlife Areas. The Gila River is also an important wildlife linkage/movement area.

- The Department urges FHWA and ADOT to limit impacts to the Gila River and the important habitats within and adjacent to the River, by utilizing/expanding existing roadways such as the SR85, and avoiding new alignments.
- The Department has invested considerable resources into the Arlington, Powers Butte, and Robbins Butte Wildlife Areas along the Gila River, and they represent significant conservation values to the local community. The Department requests all efforts be made to avoid impacts to these Wildlife Areas by expanding SR85 instead of creating new alignments. As a local landowner and manager, we request close coordination with FHWA and ADOT during evaluation of potential alternatives that run near/adjacent to these Wildlife Areas. Impacts should be avoided and/or minimized, and appropriate compensation of any potential impacts or loss in value of these significant conservation investments should be identified in the Tier 1 planning. .

Wildlife species currently move freely back and forth between the Maricopa Mountains of the Sonoran Desert National Monument (SDNM) and the Estrella Mountains to the northeast, and throughout Rainbow and Little Rainbow Valleys. The SDNM has significant barriers to the west (SR 85) and south (I - 8); a new alignment through Rainbow Valley and/or Vekol Valley would create a new barrier to the north and east and result in complete isolation of the SDNM. Given the existing and proposed develop to the west of the Estrella Mountains; the northern section of SDNM would be surrounded by significant barriers, isolating the monument from other wildlife habitats. This would be a significant impact to wildlife populations, wildlife habitats and wildlife-dependent recreation.

The Department has been engaged in various land use planning efforts for several years with local partners such as the Bureau of Land Management (BLM), City of Goodyear, ADOT and the Maricopa County Flood Control District (MCFCD), and Maricopa County Parks & Recreation Department (MCPRD), to develop strategies and commitments to conserve a

proposed wildlife habitat linkage design across Rainbow Valley (Gila Bend – Sierra Estrella Linkage Design; and 2008 Workshop Max-BLM alternative - unpublished data). These stakeholders have begun to develop mitigation commitments related to future infrastructure and urban development to preserve the wildlife linkage; some of the most relevant relate to the proposed Sonoran Parkway.

- The Department urges FHWA and ADOT to consider these local planning efforts when evaluating alternatives and seek alignment with mitigation strategies to conserve the linkage area. Some of these efforts include: *Sonoran Valley Parkway Project DEIS* (BLM 2013), *Rainbow Valley Area Drainage Master Plan* (Maricopa County Flood Control 2011), *Lower Sonoran and Sonoran Desert National Monument Draft Resource Management Plan and EIS* (BLM 2011), and the *Goodyear Parks, Recreation, Trails and Open Space Master Plan* (Goodyear 2014).
- The Department requests FHWA and ADOT avoid impacts to the Rainbow Valley and its surrounding mountains by utilizing/expanding the existing SR85 and I-8.
- The expansion of SR85 and I-8 (the Department's preferred route through the vicinity) provides opportunities to improve permeability along these existing roadways; it is critical that wildlife movement through these existing barriers not be further reduced.
- Maintaining and improving wildlife movement within and through the I-11 Corridor is paramount to healthy, sustainable wildlife populations in the region. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to conduct future wildlife movement studies in conjunction with any Tier II level efforts. These studies should include, but are not limited to, conducting GPS telemetry studies of animals fitted with transmitters, wildlife mortality (i.e. roadkill), track/scat surveys, and/or camera traps and various small mammal or herpetological arrays to examine biodiversity and local wildlife movement patterns; in addition to analysis of existing and collected movement data, and examination of traffic data in conjunction with these studies.
- If an alignment through Rainbow Valley is chosen to move forward into the Tier II NEPA analysis, it is imperative that adequate permeability for wildlife be designed for the roadway; and that solutions align with previous planning efforts. Design considerations for all alignments should include a comprehensive network of permeability features including overpasses, underpass, culverts, funnel fencing, and other components. These design considerations should cover the extent of each alignment's intersection with non-urban areas with special attention given to areas identified as important to wildlife connectivity. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with AGFD on the siting and design of roadway construction and/or expansions through this area as the Tier II level efforts progress.

SOUTH (NOGALES TO CASA GRANDE):

The current Interstate-10 corridor between Casa Grande and Tucson poses a significant barrier to east-west wildlife movement in the region. Consequently, maintaining existing movement linkages between large habitat blocks west of I-10 is paramount; any alignment west of I-10 would result in further fragmentation, and thus would have significant impacts to wildlife connectivity, including contributing to cumulative effects to wildlife movement in the region.

- The Department urges FHWA and ADOT to avoid impacts to habitat and wildlife connectivity between Picacho Peak State Park and the Silver Bell Mountains (Ironwood-Picacho Linkage Design) by utilizing/expanding the existing I-10 Corridor.
- FHWA and ADOT should examine opportunities to offset impacts to wildlife movement by improving permeability across I-10. These opportunities are relevant to an I-10 expansion, to maintain and improve permeability of the corridor. For I-11 alignments being considered to the east or west of I-10, these offsets are critical to the viability of habitat persistence. The addition of crossing features/improvements on I-10 in conjunction with a comprehensive connectivity network on I-11 would provide relief of the cumulative reduced permeability effects to the habitat block otherwise isolated between the two interstates., should an alignment east or west of I-10 be selected.

In 2007, the Arizona Game and Fish Commission took a unanimous position of opposition to all routes for the proposed I-10 bypass, which included a route through the Avra Valley, as does the I-11 Tier 1 EIS Study Corridor. The Department now reiterates what we included in a December 18, 2008 letter to the ADOT Director: “The cumulative impact of developing new transportation infrastructure through rural lands will have the effect of a catalyst for urban, suburban, and exurban development. The Department does not find the I-10 bypass [which in part covered the same area of the proposed I-11 Study Corridor through the Avra Valley] to be consistent with smart growth and sustainable planning principles. The vastness of Arizona’s undeveloped country, and its wildlife resources, must be recognized as one of our greatest assets for current and future generations.”

As previously stated, the Department considers an Interstate/Multi-Modal corridor to be incompatible with a county, state, or federal park/recreation area. Within the Avra Valley west of Tucson, several such specially designated lands occur: Saguaro National Park, Ironwood Forest National Monument, Tucson Mountain Park/Tucson Mountain Wildlife Area, and the Tucson Mitigation Corridor. These designations demonstrate the significance of these lands to county, state, and federal officials, as well as the public at large, for recreation and wildlife habitat. The considerable public investment in these lands would be irreparably devalued by siting an Interstate/Multi-Modal corridor west of Tucson within the Tier 1 EIS Study Corridor.

Over the past decade, biologists from Saguaro National Park have documented a marked decrease in mesocarnivore diversity. Wildlife camera-trapping records of once common species such as badger, raccoon, coati, and skunks have all decreased (S. Stonum, personal communication, June 30, 2016). Increasing habitat fragmentation from expanding infrastructure and suburban development is thought to be a major contributor to this diminishing faunal assemblage. The Department, along with Pima County and numerous other partners, continues

efforts throughout the area to identify important wildlife corridors to be conserved as well as opportunities to improve previously degraded connectivity.

In combination with Saguaro National Park, Tucson Mountain Park (est. 1929) provides protection for wildlife and habitat across the majority of the Tucson Mountains. However, this mountain range is under increased pressure from surrounding development, habitat fragmentation, and movement barriers. One especially significant barrier to wildlife movement is the CAP canal. The 4.25 square miles of land known as the Tucson Mitigation Corridor (TMC) was acquired by the BOR to partially mitigate biological impacts from the CAP. As the CAP crosses the TMC, five sections of the canal are underground, allowing wildlife to freely pass between the Tucson Mountains and the Tohono O'odham Nation, and maintain natural flow patterns of a number of foothill washes. The mitigation value of the TMC would be severely compromised by construction and operation of an Interstate/Multi-Modal corridor and could set a severely damaging precedent for conservation and mitigation lands elsewhere.

- Maintaining and improving wildlife movement within and through the I-11 Corridor is paramount to healthy, sustainable wildlife populations in the region. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to conduct future wildlife movement studies in conjunction with any Tier II level efforts. These studies should include at a minimum, GPS telemetry studies of collared animals, wildlife mortality (i.e. roadkill) and tracking surveys, analysis of existing and collected movement data, and examination of traffic data in conjunction with these studies. The Department is available to assist FHWA and ADOT in the gathering of existing wildlife movement data housed with the Department and other wildlife-oriented entities in southern Arizona.
- From the initial design stages forward, any alignments chosen for further analysis must include a rigorous consideration of a network of crossing structures including overpasses, underpasses, culverts, funnel fencing, and other related components. The Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with AGFD on the siting and design of roadway construction and/or expansions as the Tier II level efforts progress.
- The Department urges FHWA and ADOT to work closely with BOR to preserve the TMC, as well as identify opportunities for creating new, and enhancing existing, wildlife crossing structures over the CAP within and adjacent to the I-11 Corridor.
- The Department urges FHWA and ADOT to avoid impacts to habitat and wildlife connectivity within and through the Avra Valley and the surrounding mountains (Tucson, Roskrige, and Coyote Mountains; Coyote-Ironwood-Tucson Linkage Design) by utilizing/expanding the existing I-10 and I-19 Corridors.
- If a new alignment west of the Tucson Mountains, such as Sandario Road, is chosen to move forward into the Tier II NEPA analysis, it is imperative that adequate permeability and mitigation for wildlife be designed for the roadway.
- Additionally, the expansion of I-10 and I-19 (the Department's preferred route through the vicinity) provides opportunities to improve permeability along these existing roadways; it is critical that wildlife movement through these existing barriers not be further reduced.

The Department has been engaged in various land use planning efforts for several years with local partners such as the Bureau of Land Management (BLM), ADOT, the Pima Association of Government's Regional Transportation Authority (RTA), Pima County Regional Flood Control District (PCRFGD), Pima County Natural Resources, Parks & Recreation (PCNRPR), Coalition for Sonoran Desert Protection (CSDP), Tucson Audubon Society, Saguaro National Park, Tohono O'odham Nation, and Sky Island Alliance (SIA) to develop strategies and commitments to implement wildlife habitat linkage designs connecting the sky islands and desert valleys.

- We recommend additional coordination with the Department, RTC, CSDP, Audubon, SNP, SIA, and Pima County to familiarize FHWA and ADOT with local conservation efforts and alternative solutions that these organizations and their stakeholders are pursuing.

East of I-10 are located several major investments in wildlife connectivity. Bridges and culverts combined with exclusion fencing along rights-of-way have been designed and installed to enhance wildlife movement and improve motorist safety (e.g., Tangerine Road, Twin Peaks Road). These structures demonstrate the commitment of local municipalities, Pima County, ADOT, and the Department to work together and fund wildlife crossing structures to maintain movement corridors for wildlife between large intact blocks of undeveloped habitat.

- Any analysis of potential I-11 routes east of I-10 in the greater Tucson area should consider possible impacts to wildlife crossing structures and mitigation for those impacts.

South of Tucson along I-19, a number of biologically diverse mountain ranges (i.e. "sky islands") and riparian habitats east and west of I-19 are host to a number of endemic and/or rare species, including neo-tropical avian migrants, and predators such as jaguar and ocelot in the Santa Rita Mountains. Wildlife movement between these sky islands is critical to the unique diversity in the region. Wildlife movement linkages have been identified in the region to maintain movement across I-19, including between the Santa Rita and Sierrita Mountains (Santa Rita-Sierrita Linkage), and between the Santa Rita and Tumacacori Mountains (Santa Rita-Tumacacori Linkage). Additionally, wildlife move north and south, parallel to I-19, along the Santa Cruz River.

- The Department urges FHWA and ADOT to avoid impacts to the Sierrita, Santa Rita, Tumacacori, Atascosa, and Pajarito Mountains (Santa Rita-Tumacacori, Santa Rita-Sierrita, and Mexico-Tumacacori-Baboquivari Linkage Designs) by utilizing/expanding the existing I-19 Corridor.
- Maintaining and improving wildlife movement within and through the I-11 Corridor is paramount to healthy, sustainable wildlife populations in the region. As detailed in the General Comments, the Department seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to conduct future wildlife movement studies in conjunction with any Tier II level efforts. The Department is available to assist FHWA and ADOT in the gathering of existing wildlife movement data housed with the Department and other wildlife-oriented entities in southern Arizona.
- From the initial design stages forward, any alignments chosen for further analysis must include a rigorous consideration of a network of crossing structures including overpasses, underpasses, culverts, funnel fencing, and other related components. The Department

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seeks written commitment from the FHWA and ADOT, within the Tier I EIS, to coordinate with AGFD on the siting and design of roadway construction and/or expansions as the Tier II level efforts progress.

The Department owns and manages (jointly with Arizona State Parks) the Coal Mine Spring property, situated east of I-19 in the Grosvenor Hills adjacent the Sonoita Creek State Natural Area. The Coal Mine/Fresno Canyon population of Gila topminnow represents the second largest population, both numerically and spatially, of Gila topminnow left in existence. Protection of the Coal Mine Spring population is of paramount importance to the continued existence and recovery of Gila topminnow in this area. The Revised Recovery Plan identifies the securing of remaining natural populations and their habitats in the U.S. as the first survival criterion for this species.

- The Department has invested considerable resources into the Coal Mine Springs property, and it represents significant conservation values to the local community. The Department requests all efforts be made to minimize impacts to this property by expanding I-19 instead of creating new alignments. As a local landowner and manager, we request close coordination with FHWA and ADOT during evaluation of potential alternatives that run near/adjacent to this Wildlife Area. Impacts should be avoided and/or minimized, and appropriate compensation of any potential impacts or loss in value of these significant conservation investments should be identified in the Tier 1 planning.

The Department trusts our scoping comments for the I-11 Tier I EIS will aid FHWA and ADOT in your alternative selection and evaluation; we will provide additional information on future data needs and mitigation opportunities as the study progresses. We continue to look forward to collaborating with FHWA and ADOT on this important transportation project. If you have any questions or wish to further discuss our comments and concerns, please contact Cheri Boucher, the Department's Project Evaluation Program transportation coordinator, at cboucher@azgfd.gov (623-236-7615).

Sincerely,



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Arizona Environmental Online Review Tool Report



Arizona Game and Fish Department Mission

To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

I-11 Tier I DEIS

Project Description:

I-11

Project Type:

Transportation & Infrastructure, Road construction (including staging areas), Realignment/new roads

Contact Person:

Cheri Boucher

Organization:

Arizona Game and Fish Department

On Behalf Of:

AZGFD

Project ID:

HGIS-03797

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

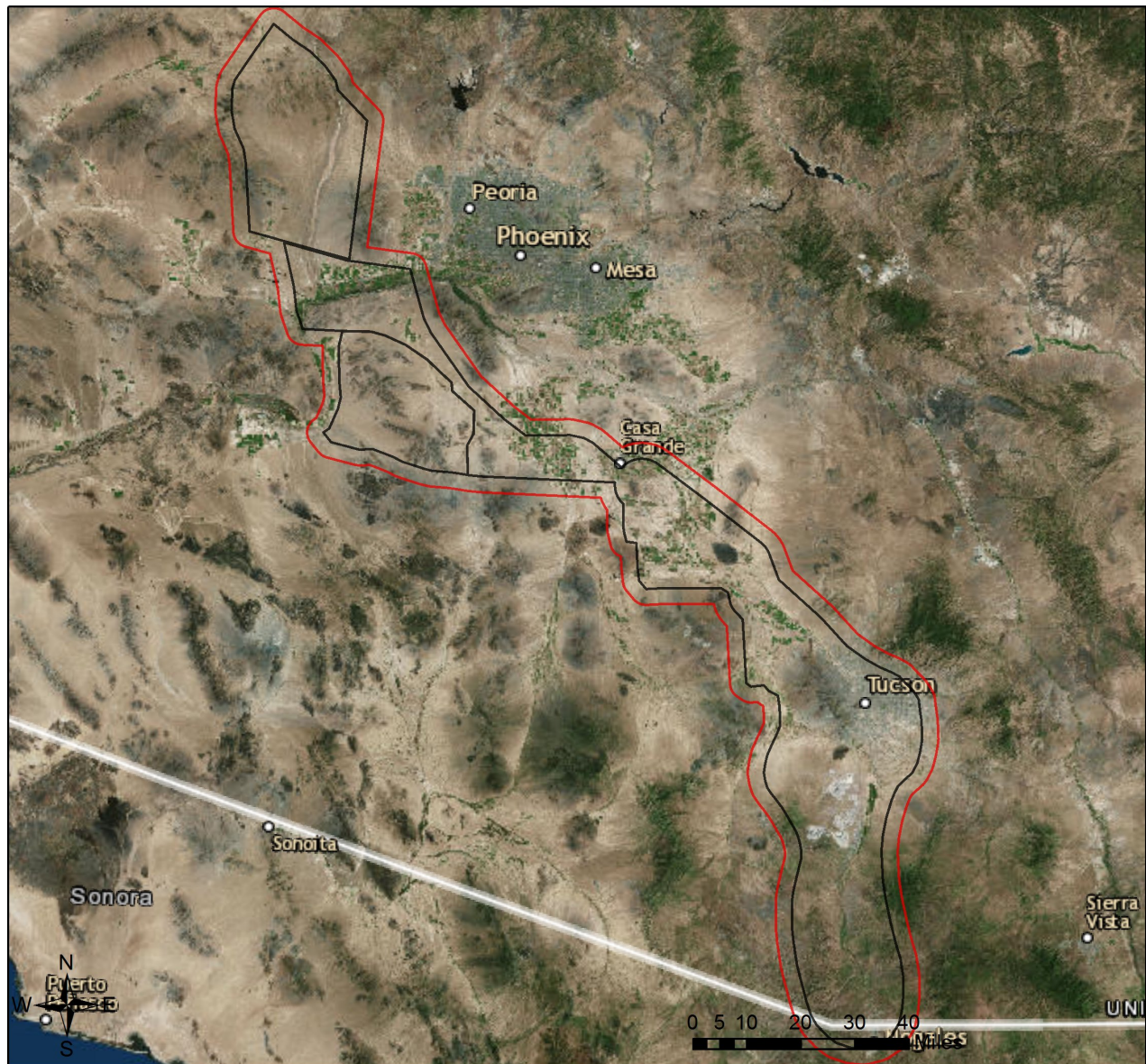
Locations Accuracy Disclaimer:



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

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366
Or
PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

I-11 Tier I DEIS Aerial Image Basemap With Locator Map



-  Project Boundary
-  Buffered Project Boundary

Project Size (acres): 2,614,384.10

Lat/Long (DD): 32.4621 / -111.3005

County(s): Yavapai; Maricopa; Pinal; Pima +

AGFD Region(s): Yuma; Mesa; Tucson

Township/Range(s): T9N, R6W; T8N, R7W; T8N, R6W +



USGS Quad(s): CONGRESS SW; FLORES +

Service Layer Credits: Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong),



Web Map As Submitted By User



-  Project Boundary
-  Buffered Project Boundary

Project Size (acres): 2,614,384.10

Lat/Long (DD): 32.4621 / -111.3005

County(s): Yavapai; Maricopa; Pinal; Pima +

AGFD Region(s): Yuma; Mesa; Tucson

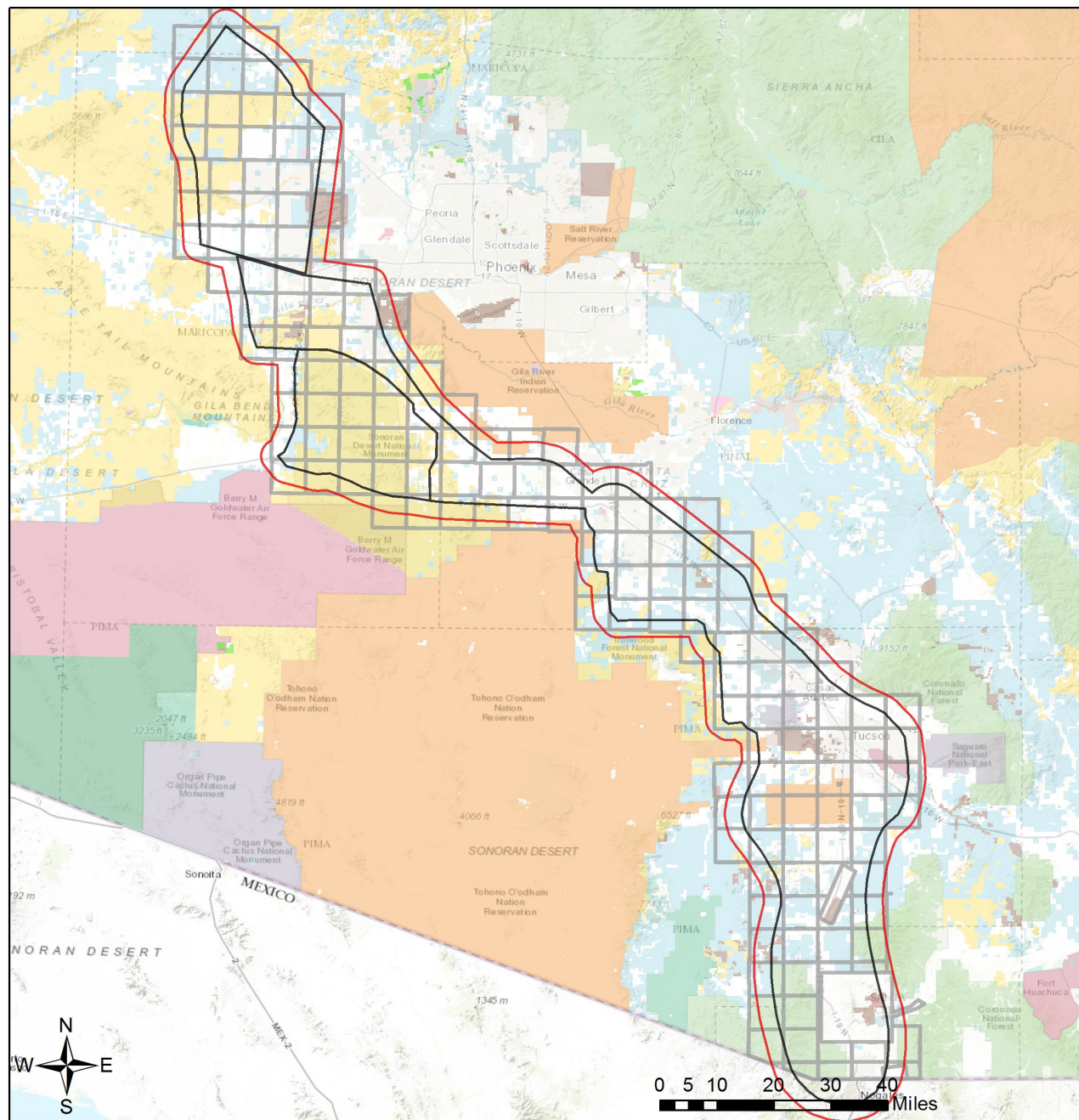
Township/Range(s): T9N, R6W; T8N, R7W; T8N, R6W +

USGS Quad(s): CONGRESS SW; FLORES +

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

I-11 Tier I DEIS

Topo Basemap With Township/Ranges and Land Ownership



- | | |
|---------------------------|--------------------------|
| Project Boundary | Mixed/Other |
| Buffered Project Boundary | National Park/Mon. |
| Township/Ranges | Private |
| AZ Game and Fish Dept. | State and Regional Parks |
| BLM | State Trust |
| BOR | US Forest Service |
| Indian Res. | Wildlife Area/Refuge |
| Military | |

Project Size (acres): 2,614,384.10

Lat/Long (DD): 32.4621 / -111.3005

County(s): Yavapai; Maricopa; Pinal; Pima +

AGFD Region(s): Yuma; Mesa; Tucson

Township/Range(s): T9N, R6W; T8N, R7W; T8N, R6W +

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Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Abutilon parishii	Pima Indian Mallow	SC	S	S	SR	
Accipiter gentilis	Northern Goshawk	SC	S	S		1B
Agave murpheyi	Hohokam Agave	SC	S	S	HS	
Agave parviflora ssp. parviflora	Santa Cruz Striped Agave	SC	S		HS	
Agave schottii var. treleasei	Trelease Agave	SC	S		HS	
Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S		1B
Ak-Chin Indian Reservation	Ak-Chin Indian Reservation					
Amazilia violiceps	Violet-crowned Hummingbird		S			1B
Ammodramus savannarum ammolegus	Arizona grasshopper sparrow		S	S		1B
Amoreuxia gonzalezii	Saiya	SC	S		HS	
Amsonia grandiflora	Large-flowered Blue Star	SC	S			
Anaxyrus microscaphus	Arizona Toad	SC				1B
Anaxyrus retiformis	Sonoran Green Toad			S		1B
Antilocapra americana sonoriensis	10J area for Sonoran Pronghorn	LE,XN				
Antrostomus ridgwayi	Buff-collared Nightjar		S			1B
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Argia sabino	Sabino Canyon Dancer	SC	S			
Asclepias lemmonii	Lemmon Milkweed		S			
Aspidoscelis arizonae	Arizona Striped Whiptail			S		1B
Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S			1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Baiomys taylori	Northern Pygmy Mouse		S			
Bat Colony						
Buteo plagiatus	Gray Hawk	SC				
CH for Empidonax traillii extimus	Southwestern Willow Flycatcher Designated Critical Habitat					
CH for Gila ditaenia	Sonora Chub Designated Critical Habitat					
CH for Gila intermedia	Gila Chub Designated Critical Habitat					
CH for Lithobates chiricahuensis	Chiricahua Leopard Frog Designated Critical Habitat					
CH for Panthera onca	Jaguar Designated Critical Habitat					
CH for Strix occidentalis lucida	Mexican Spotted Owl Designated Critical Habitat					
Calothorax lucifer	Lucifer Hummingbird		S			
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			1B
Canis lupus baileyi	10J area Zone 2 for Mexican gray wolf	LE,XN				
Capsicum annuum var. glabriusculum	Chiltepin		S			

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Carex chihuahuensis	Chihuahuan Sedge		S			
Carex ultra	Arizona Giant Sedge		S	S		
Catostomus clarkii	Desert Sucker	SC	S	S		1B
Catostomus insignis	Sonora Sucker	SC	S	S		1B
Chionactis occipitalis klauberi	Tucson Shovel-nosed Snake	SC				1A
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S		1C
Choisya mollis	Santa Cruz Star Leaf	SC	S			
Cicindela oregona maricopa	Maricopa Tiger Beetle	SC				
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Coryphantha recurvata	Santa Cruz Beehive Cactus		S		HS	
Coryphantha scheeri var. robustispina	Pima Pineapple Cactus	LE			HS	
Coyote - Ironwood - Tucson Linkage Design	Wildlife Corridor					
Craugastor augusti cactorum	Western Barking Frog		S			1B
Crotalus lepidus klauberi	Banded Rock Rattlesnake					1A
Crotalus pricei	Twin-spotted Rattlesnake		S			1A
Crotalus willardi willardi	Arizona Ridge-nosed Rattlesnake		S			1A
Cylindropuntia x kelvinensis	Kelvin Cholla				SR	
Dalea tentaculoides	Gentry's Indigo Bush	SC	S	S	HS	
Dendrocygna bicolor	Fulvous Whistling-Duck	SC				
Desmodium metcalfei	Metcalfe's Tick-trefoil		S			
Echinocereus fasciculatus	Magenta-flower Hedgehog-cactus				SR	
Echinomastus johnsonii	Johnson's Fishhook Cactus				SR	
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE				1A
Erigeron arisoli	Arid Throne Fleabane		S			
Erigeron piscaticus	Fish Creek Fleabane	SC	S	S	SR	
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A
Ferocactus cylindraceus	Desert Barrel Cactus				SR	
Ferocactus emoryi	Emory's Barrel-cactus				SR	
Gastrophryne olivacea	Western Narrow-mouthed Toad			S		1C
Gila Bend - Sierra Estrella Linkage Design	Wildlife Corridor					
Gila Bend Indian Reservation	Gila Bend Indian Reservation					
Gila River Indian Reservation	Gila River Indian Reservation					
Gila ditaenia	Sonora Chub	LT				1A
Gila intermedia	Gila Chub	LE				1A
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	SC	S	S		1B
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S			1A

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Graptopetalum bartramii	Bartram Stonecrop	SC	S	S	SR	
Haliaeetus leucocephalus (wintering pop.)	Bald Eagle - Winter Population	SC,BG A	S	S		1A
Heloderma suspectum suspectum	Reticulate Gila Monster					1A
Hexalectris arizonica	Arizona Crested coral-root		S		SR	
Ironwood - Picacho Linkage Design	Wildlife Corridor					
Lasiurus xanthinus	Western Yellow Bat		S			1B
Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE				1A
Lilaeopsis schaffneriana ssp. recurva	Huachuca Water-umbel	LE			HS	
Lithobates chiricahuensis	Chiricahua Leopard Frog	LT				1A
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Lotus alamosanus	Alamos Deer Vetch		S			
Macroptilium supinum	Supine Bean	SC	S		SR	
Malaxis corymbosa	Madrean Adder's Mouth				SR	
Mammillaria wrightii var. wilcoxii	Wilcox Fishhook Cactus				SR	
Metastelma mexicanum	Wiggins Milkweed Vine	SC	S			
Muhlenbergia elongata	Sycamore Muhly		S			
Myotis velifer	Cave Myotis	SC		S		1B
Nyctinomops macrotis	Big Free-tailed Bat	SC				

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Opuntia engelmannii var. flavispina					SR	
Opuntia versicolor	Stag-horn Cholla				SR	
Oxybelis aeneus	Brown Vinesnake		S			1B
PCH for Coccyzus americanus	Yellow-billed Cuckoo Proposed Critical Habitat					
Pachyramphus aglaiae	Rose-throated Becard		S			1B
Panthera onca	Jaguar Area of Capture Concern					
Panthera onca	Jaguar	LE				1A
Pascua Yaqui Indian Reservation	Pascua Yaqui Indian Reservation					
Passiflora arizonica	Arizona Passionflower		S			
Patagonia - Santa Rita Linkage Design	Wildlife Corridor					
Pectis imberbis	Beardless Chinch Weed	SC	S			
Peniocereus greggii var. transmontanus	Desert Night-blooming Cereus				SR	
Pennellia tricornuta	Chiricahua Rock Cress		S			
Penstemon discolor	Catalina Beardtongue		S		HS	
Phrynosoma cornutum	Texas Horned Lizard	SC				
Physalis latiphysa	Broadleaf Groundcherry		S			
Plestiodon callicephalus	Mountain Skink		S			
Poeciliopsis occidentalis occidentalis	Gila Topminnow	LE				1A
Psilotum nudum	Whisk Fern		S		HS	
Rallus obsoletus yumanensis	Yuma Ridgeway's Rail	LE				1A
Rhinichthys osculus	Speckled Dace	SC		S		1B
Sabino Creek and Lower Bear Creek	Important Bird Area					
Salt/Gila Riparian Ecosystem	Important Bird Area					
Samolus vagans	Chiricahua Mountain Brookweed		S			
San Xavier Indian Reservation	San Xavier Indian Reservation					
Santa Rita - Sierrita Linkage Design	Wildlife Corridor					
Santa Rita - Tumacacori Linkage Design	Wildlife Corridor					
Santa Rita Mountains, Coronado National Forest	Important Bird Area					
Sauromalus ater	Common Chuckwalla	SC				
Sceloporus slevini	Slevin's Bunchgrass Lizard		S	S		1B
Senecio multidentatus var. huachucanus	Huachuca Groundsel		S		HS	
Senticolis triaspis intermedia	Northern Green Ratsnake		S			1B
Sigmodon ochrognathus	Yellow-nosed Cotton Rat	SC				1C

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Sisyrinchium cernuum	Nodding Blue-eyed Grass		S			
Sonoita Creek State Natural Area/ Patagonia Lake	Important Bird Area					
Sonorella eremita	San Xavier Talussnail	CCA				1A
Sorex arizonae	Arizona Shrew	SC	S			1B
Stenocereus thurberi	Organ Pipe Cactus				SR	
Strix occidentalis lucida	Mexican Spotted Owl	LT				1A
Stygobromus arizonensis	Arizona Cave Amphipod	SC		S		1B
Sycamore Canyon, Coronado National Forest	Important Bird Area					
Tantilla wilcoxi	Chihuahuan Black-headed Snake		S			1B
Tantilla yaquia	Yaqui Black-headed Snake		S			1B
Terrapene ornata luteola	Desert Box Turtle			S		1A
Thamnophis eques megalops	Northern Mexican Gartersnake	LT	S			1A
Tohono O'odham Nation	Tohono O'odham Nation					
Tragia laciniata	Sonoran Noseburn		S			
Trogon elegans	Elegant Trogon		S			1B
Tucson - Tortolita - Santa Catalina Mountains Linkage Design	Wildlife Corridor					
Tumamoca macdougalii	Tumamoc Globeberry		S	S	SR	
Tyrannus crassirostris	Thick-billed Kingbird		S			1B
Upper Santa Cruz River	Important Bird Area					
Viola umbraticola	Shade Violet		S			
Wickenburg - Hassayampa Linkage Design	Wildlife Corridor					

Note: Status code definitions can be found at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/>.

**Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Agosia chrysogaster	Longfin Dace	SC		S		1B
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisi	Harris' Antelope Squirrel					1B
Anaxyrus microscaphus	Arizona Toad	SC				1B
Anaxyrus retiformis	Sonoran Green Toad			S		1B
Anthus spragueii	Sprague's Pipit	C*				1A
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B

**Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
<i>Buteo regalis</i>	Ferruginous Hawk	SC		S		1B
<i>Castor canadensis</i>	American Beaver					1B
<i>Charadrius montanus</i>	Mountain Plover	SC				1B
<i>Charadrius nivosus nivosus</i>	Western Snowy Plover					1B
<i>Chilomeniscus stramineus</i>	Variable Sandsnake					1B
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
<i>Colaptes chrysoides</i>	Gilded Flicker			S		1B
<i>Coluber bilineatus</i>	Sonoran Whipsnake					1B
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat	SC	S	S		1B
<i>Crotalus tigris</i>	Tiger Rattlesnake					1B
<i>Crotaphytus nebrius</i>	Sonoran Collared Lizard					1B
<i>Empidonax traillii extimus</i>	Southwestern Willow Flycatcher	LE				1A
<i>Euderma maculatum</i>	Spotted Bat	SC	S	S		1B
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat	SC		S		1B
<i>Gopherus morafkai</i>	Sonoran Desert Tortoise	C*	S			1A
<i>Haliaeetus leucocephalus</i>	Bald Eagle	SC, BGA	S	S		1A
<i>Heloderma suspectum</i>	Gila Monster					1A
<i>Incilius alvarius</i>	Sonoran Desert Toad					1B
<i>Kinosternon sonoriense sonoriense</i>	Desert Mud Turtle			S		1B
<i>Lasiurus blossevillei</i>	Western Red Bat		S			1B
<i>Lasiurus xanthinus</i>	Western Yellow Bat		S			1B
<i>Leptonycteris curasoae yerbabuenae</i>	Lesser Long-nosed Bat	LE				1A
<i>Lepus alleni</i>	Antelope Jackrabbit					1B
<i>Lichanura trivirgata</i>	Rosy Boa	SC				1B
<i>Lithobates yavapaiensis</i>	Lowland Leopard Frog	SC	S	S		1A
<i>Macrotus californicus</i>	California Leaf-nosed Bat	SC		S		1B
<i>Melanerpes uropygialis</i>	Gila Woodpecker					1B
<i>Melospiza lincolni</i>	Lincoln's Sparrow					1B
<i>Melospiza aberti</i>	Abert's Towhee		S			1B
<i>Micruroides euryxanthus</i>	Sonoran Coralsnake					1B
<i>Myotis velifer</i>	Cave Myotis	SC		S		1B
<i>Myotis yumanensis</i>	Yuma Myotis	SC				1B
<i>Nyctinomops femorosaccus</i>	Pocketed Free-tailed Bat					1B
<i>Ovis canadensis nelsoni</i>	Desert Bighorn Sheep					1B
<i>Passerculus sandwichensis</i>	Savannah Sparrow					1B
<i>Perognathus amplus</i>	Arizona Pocket Mouse					1B
<i>Perognathus longimembris</i>	Little Pocket Mouse					1B

**Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models**

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Phrynosoma goodei	Goode's Horned Lizard					1B
Phrynosoma solare	Regal Horned Lizard					1B
Phyllorhynchus browni	Saddled Leaf-nosed Snake					1B
Progne subis hesperia	Desert Purple Martin			S		1B
Rallus longirostris yumanensis	Yuma Clapper Rail	LE				1A
Setophaga petechia	Yellow Warbler					1B
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Thomomys bottae subsimilis	Harquahala Southern Pocket Gopher	SC				1B
Toxostoma lecontei	Le Conte's Thrasher					1B
Troglodytes pacificus	Pacific Wren					1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vulpes macrotis	Kit Fox					1B

Species of Economic and Recreation Importance Predicted within Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Callipepla squamata	Scaled Quail					1C
Cyrtonyx montezumae	Montezuma Quail					1C
Meleagris gallopavo	Wild Turkey					
Odocoileus hemionus	Mule Deer					
Odocoileus virginianus	White-tailed Deer					1B
Ovis canadensis mexicana	Mexicana Desert Bighorn Sheep					1B
Patagioenas fasciata	Band-tailed Pigeon					1C
Pecari tajacu	Javelina					
Puma concolor	Mountain Lion					
Sciurus nayaritensis	Mexican Fox Squirrel					
Ursus americanus	American Black Bear					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Transportation & Infrastructure, Road construction (including staging areas), Realignment/new roads

Project Type Recommendations:

Bridge Maintenance/Construction

Identify whether wildlife species use the structure for roosting or nesting during anticipated maintenance/construction period. Plan the timing of maintenance/construction to minimize impacts to wildlife species. In addition to the species list generated by the Arizona's On-line Environmental Review Tool, the Department recommends that surveys be conducted at the bridge and in the vicinity of the bridge to identify additional or currently undocumented bat, bird, or aquatic species in the project area. To minimize impacts to birds and bats, as well as aquatic species, consider conducting maintenance and construction activities outside the breeding/maternity season (breeding seasons for birds and bats usually occur spring - summer). Examining the crevices for the presence of bats prior to pouring new paving materials or that the top of those crevices be sealed to prevent material from dripping or falling through the cracks and potentially onto bats. If bats are present, maintenance and construction (including paving and milling) activities should be conducted during nighttime hours, if possible, when the fewest number of bats will be roosting. Minimize impacts to the vegetation community. Unavoidable impacts to vegetation should be mitigated on-site whenever possible. A revegetation plan should be developed to replace impacted communities.

Consider design structures and construction plans that minimize impacts to channel geometry (i.e., width/depth ratio, sinuosity, allow overflow channels), to avoid alteration of hydrological function. Consider incorporating roosting sites for bats into bridge designs. During construction, erosion control structures and drainage features should be used to prevent introduction of sediment laden runoff into the waterway. Minimize instream construction activity. If culverts are planned, use wildlife friendly designs to mitigate impacts to wildlife and fish movement. Guidelines for bridge designs to facilitate wildlife passage can be found on our Wildlife Friendly Guidelines web page under the Wildlife Planning button, at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

Fence recommendations will be dependant upon the goals of the fence project and the wildlife species expected to be impacted by the project. General guidelines for ensuring wildlife-friendly fences include: barbless wire on the top and bottom with the maximum fence height 42", minimum height for bottom 16". Modifications to this design may be considered for fencing anticipated to be routinely encountered by elk, bighorn sheep or pronghorn (e.g., Pronghorn fencing would require 18" minimum height on the bottom). Please refer to the Department's Fencing Guidelines located on Wildlife Friendly Guidelines page, which is part of the Wildlife Planning button at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

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

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, cantered, or cut to ensure that light reaches only areas needing illumination.

Minimize potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g., microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g., livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before leaving the site. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants, <https://agriculture.az.gov/>. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control, <http://www.usda.gov/wps/portal/usdahome>. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information <https://www.azgfd.com/hunting/regulations>.

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

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

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

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herptefauna (snakes, lizards, tortoise) from entering ditches.

Design culverts to minimize impacts to channel geometry, or design channel geometry (low flow, overbank, floodplains) and substrates to carry expected discharge using local drainages of appropriate size as templates. Reduce/minimize barriers to allow movement of amphibians or fish (e.g., eliminate falls). Also for terrestrial wildlife, washes and stream corridors often provide important corridors for movement. Overall culvert width, height, and length should be optimized for movement of the greatest number and diversity of species expected to utilize the passage. Culvert designs should consider moisture, light, and noise, while providing clear views at both ends to maximize utilization. For many species, fencing is an important design feature that can be utilized with culverts to funnel wildlife into these areas and minimize the potential for roadway collisions. Guidelines for culvert designs to facilitate wildlife passage can be found on the home page of this application at <https://www.azgfd.com/wildlife/planning/wildlifeguidelines/>.

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

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

Based on the project type entered, coordination with County Flood Control district(s) may be required.

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

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

Project Location and/or Species Recommendations:

HDMS records indicate that one or more native plants listed on the Arizona Native Plant Law and Antiquities Act have been documented within the vicinity of your project area. Please contact:

Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373

<https://agriculture.az.gov/environmental-services/np1>

HDMS records indicate that one or more listed, proposed, or candidate species or Critical Habitat (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at <http://www.fws.gov/southwest/es/arizona/> or:

Phoenix Main Office

2321 W. Royal Palm Rd, Suite 103
Phoenix, AZ 85021
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office

201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office

SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

HDMS records indicate that Western Burrowing Owls have been documented within the vicinity of your project area. Please review the western burrowing owl resource page at: http://www.azgfd.gov/w_c/BurrowingOwlResources.shtml.

HDMS records indicate that Sonoran Desert Tortoise have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at: <http://www.azgfd.gov/hgis/pdfs/Tortoisehandlingguidelines.pdf>

HDMS records indicate that Chiricahua Leopard Frogs have been documented within the vicinity of your project area. Please review the Chiricahua Leopard Frog Management Guidelines found at: <http://www.azgfd.gov/hgis/documents/FINALLithchirHabitatGdlns.pdf>.

HDMS records indicate that Lesser Long-nosed Bats have been documented within the vicinity of your project area. Please review the Lesser Long-nosed Bat Management Guidelines at: <http://www.azgfd.gov/hgis/documents/FINALIecuyeHabitatGdln.pdf>.

The analysis has detected one or more Important Bird Areas within your project vicinity. Please see http://aziba.org/?page_id=38 for details about the Important Bird Area(s) identified in the report.

Your project site is within one or more defined Areas of Capture Concern. Please follow Department protocols while working within an Area of Capture Concern at U:\Agency Directives\JaguarOcelot Directives 17AUG10.pdf.

Analysis indicates that your project is located in the vicinity of an identified wildlife habitat linkage corridor. Project planning and implementation efforts should focus on maintaining adequate opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: <http://www.corridordesign.org/arizona>. Please contact your local Arizona Game and Fish Department Regional Office for specific project recommendations: http://www.azgfd.gov/inside_azgfd/agency_directory.shtml.

Tribal Lands are within the vicinity of your project area and may require further coordination. Please contact:

Ak-Chin Indian Community Council

42507 W Peters & Nail Rd Maricopa, AZ 85239

(520) 568-2618

(520) 568-4566 (fax)

Tribal Lands are within the vicinity of your project area and may require further coordination. Please contact:

Tohono O'odham Nation

PO Box 837

Sells, AZ 85634

(520) 383-2028

(520) 383-3379 (fax)

Tribal Lands are within the vicinity of your project area and may require further coordination. Please contact:

Gila River Indian Community

PO Box 97

Sacaton, AZ 85247

(520) 562-6000

(520) 562-6010 (fax)

Tribal Lands are within the vicinity of your project area and may require further coordination. Please contact:

Pascua Yaqui Tribe

7474 S Camino de Oeste Tucson, AZ 85746

(520) 883-5000 ext. 5016

(520) 883-5014 (fax)



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GAME AND FISH DEPARTMENT

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February 1, 2017

Ms. Karla S. Petty
Arizona Division Administrator
Federal Highway Administration
4000 North Central Avenue, Suite 1500
Phoenix, Arizona 85012-3500

Re: Arizona Game & Fish Department's Tucson Mountain Wildlife Area

This letter is in response to your request for the a description of the nature and purpose of the Arizona Game and Fish Commission's Tucson Mountain Wildlife Area as described in Arizona Administrative Code R12-4-802 (31). We understand that this request is in connection with the Federal Highway Administration's evaluation of potential Section 4(f) properties along the I-11 corridor study area. Thank you for the opportunity to provide this information to you.

Applicable laws. Section 4(f) of the Department of Transportation Act of 1966, now 23 U.S.C. § 138 and 49 U.S.C. § 303, provides that the Secretary of Transportation shall cooperate and consult with the States in developing transportation plans and that the Secretary shall not approve any project which requires the use of any publicly-owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, State or local significance as determined by the Federal, State or local officials having jurisdiction (a "4(f) property") unless (1) there is no feasible or prudent alternative to the use of such land and (2) such program includes all possible planning to minimize harm.

If the Federal Highway Administration (FHWA) concludes that there is no feasible and prudent avoidance alternative to the use of a 4(f) property, only the alternative that causes the least overall harm may be selected. 23 C.F.R. 774.3.

According to the FHWA *Section 4(f) Policy Paper* at 26-27 (July 20, 2012), any significantly publicly owned public property where the primary purpose of such land is the conservation, restoration, or management of wildlife, such as a state wildlife management area, is considered by FHWA to be a wildlife refuge for purposes of Section 4(f). This includes properties that permit recreational activities that do not conflict with species preservation, such as wildlife viewing and hunting, if the activity is consistent with the broader species conservation goals of the property.

The Arizona Game and Fish Wildlife Areas, located across the state and described in Arizona Administrative Code (A.A.C.) R12-4-801, (1) provide protective measures for wildlife and

habitat; (2) allow for special management or research practices, and (3) enhance wildlife and habitat conservation.¹ All Commission Wildlife Areas are open for public recreation (wildlife watching and hunting), subject to the specific restrictions for each wildlife area as described in A.A.C. R12-4-802.

The Tucson Mountain Wildlife Area and its legally-promulgated restrictions are found in A.A.C. R12-4-802(A)(31). Only archery hunting is allowed, and motorized vehicle travel is restricted to designated roads or areas. The legal description of the Tucson Mountain Wildlife Area is found in R12-4-803(A)(31) and is depicted on Attachment A.

History of the Tucson Mountain Wildlife Area. The Tucson Mountain Wildlife Area is distinguished from the majority of the Wildlife Areas in that the Commission does not have an ownership or possessory interest in any lands within this WA. A review of its history provides insight on how this Wildlife Area was created and why it remains a Wildlife Area despite increasing urban encroachment.

By 1900, unregulated market hunting of big game species in Arizona was driving several species to extinction. The use of game refuges to promote recovery of game animals first occurred in 1917, when the Arizona legislature created four game refuges of thousands of acres on national forest lands and prohibited the hunting and trapping of deer, antelope, turkey and other game animals. The AZ Game Code of 1928 gave the Arizona Game and Fish Commission the authority to create and manage wildlife refuges². The Commission grandfathered the seven existing refuges and added 23 more, including the Tucson Mountain Game Refuge in 1931.

Prior to 1929 (when the Park was created), the area surrounding Tucson Mountain Park was overgrazed by livestock and heavily hunted, resulting in the near-extirpation of native mule deer, estimated at only 25 remaining animals.³ The Commission created the Tucson Mountain Wildlife Refuge in 1931 to serve as habitat for deer and to ensure the preservation of game for “aesthetic purposes”.⁴ That year the Department transplanted two bucks and five does from the Kaibab National Forest to the Tucson Mountain Park.⁵

Livestock were eliminated from the Park by 1934. A 1937 deer census by the Civilian Conservation Corps tallied 153 mule deer in the refuge.⁶ By 1949, the deer herd had increased to the point that it would support a limited hunt for the management purpose of conserving native grasses and forbs and protecting the carrying capacity of the Park. The first Commission-

¹ All wildlife in this State are managed and conserved by the Commission and Department as a state trust resource for the citizens of Arizona. A.R.S. 17-102 (wildlife, both resident and migratory, are property of the State).

² David E. Brown, *Bringing Back the Game, Arizona Wildlife Management 1912-1962* at 39-49 (Arizona Game and Fish Department, 2012).

³ Clark, Elmore. *A Study of the Behavior and Movements of the Tucson Mountain Mule Deer* (University of Arizona Library, 1953) found at <http://hdl.handle.net/10150/551203>. This thesis was funded in part by the Arizona Game and Fish Commission.

⁴ Id.

⁵ Id. at 11.

⁶ Id. at 12.

authorized hunt occurred in 1950, and the Commission established Game Management Unit 38M, which encompassed the Park, in 1951.⁷

With the improvement of game populations after WWII, support for game refuges and hunting bans waned and the Commission began to abolish the wildlife refuges or to redesignate them as wildlife areas.⁸ The Commission voted to abolish the last six remaining refuges in Arizona in 1958, including Tucson Mountain Wildlife Area. However, the Commission's June 1958 meeting minutes reflected local opposition, resulting in the Commission's vote to retain the Wildlife Area but to open it to archery-only hunting.

In 1968 the Arizona Game and Fish Department recommended the Commission abolish the Tucson Mountain Wildlife Area due to increasing urban encroachment. The Pima County Board of Supervisors, the City of Tucson, "thousands" of petition signers and 200 citizens in attendance at the Commission's public meeting objected to the loss of wildlife area status. Acknowledging this outpouring of opposition, the Commission voted unanimously to retain the Tucson Mountain Wildlife Area.⁹

Currently, archery-only hunting is allowed in certain portions of the Tucson Mountain Wildlife Area. The entire Wildlife Area is closed to the discharge of all firearms. R12-4-802 (31)(b). Archery deer and javelina hunters may hunt only in season (December and January) and must first obtain a permit and a special stamp from the Department's Region V office in Tucson. R18-4-802(31)(c). Hunters are given an explanatory pamphlet on hunting within the Tucson Mountain Wildlife Area (Attachment B). The Region V office issued 335 stamps/permits for the Tucson Mountain Wildlife Area in 2016. Hunting does not occur in the BOR-owned Tucson Mitigation Corridor, which is fenced. Commission Rule 12-4-802(31)(a) further prohibits off-road motorized vehicle travel throughout the Wildlife Area. The rule's purpose is to protect wildlife and habitat.

Archery-only hunting in the Tucson Mountain Wildlife Area serves as an important wildlife and habitat management tool as well as providing a recreational opportunity close to a major urban center.

The CAP aqueduct and wildlife studies leading to mitigation measures.

The preferred route for the proposed CAP Tucson Aqueduct, the "West Side Plan" through the Avra Valley, represented the alternative with the "highest biological losses". These losses primarily occur by interrupting wildlife movements in and out of the Tucson Mountains; bisecting kit fox, desert tortoise and Gila monster habitat; and severing movement patterns for mule deer, javelina and coyotes from the Tucson Mountains, Avra Valley, Ironwood Forest National Monument, the Roskrige Mountains, and the Tohono O'odham Nation.¹⁰

⁷ Id. at 13-14.

⁸ David E. Brown, *Bringing Back the Game, Arizona Wildlife Management 1912-1962* at 47-48.

⁹ Minutes of May 25, 1968 Commission meeting.

¹⁰ *Final EIS, Tucson Aqueduct Phase B* at 10-11; 46-47 (U.S. Department of Interior, Bureau of Reclamation, August 14, 1985); Record of Decision, Central Arizona Project Tucson Aqueduct-Phase B at 7.

This conclusion was based on extensive wildlife studies commissioned by BOR and conducted by the Department. In February 1981 BOR contracted with the Department to conduct a comprehensive three-year wildlife inventory of the entire Tucson Aqueduct Phase B project area.¹¹ The Department first conducted a three-year survey of all extant wildlife species in its *Biological Resource Inventory* (1983). The Department's *Final Report for the Biological Resources Inventory* summarized the Department's radio-telemetry investigations of deer, coyote, bobcat and javelina movements throughout the Tucson Division-Phase B westside aqueduct alignment. A principal function of these studies was to develop data for wildlife mitigation measures and prime locations for wildlife crossing structures.

The *Biological Resource Inventory* estimated a population size of 200-400 mule deer; 400-600 javelina, coyotes, kit fox, gray fox, bobcats, 20 small mammal species; 19 raptor species; 143 songbirds and game birds and 39 reptile and amphibian species.¹² Radio tracking of big game animals and predators documented extensive animal movements between the Tucson Mountains, Avra Valley agricultural fields and the Garcia Strip on the Tohono O'Odum Nation. FEIS at 34. The mitigation measures identified by the Department and the U.S. Fish and Wildlife Service (protective fencing, aqueduct crossings and wash siphons at migratory corridors, wildlife water catchments, rough finish on canal lining) are designed to prevent wildlife losses. FEIS at 39.

The Department further identified in its *Final Report* a 4.25 square mile parcel which could serve as a wildlife corridor to prevent the eventual genetic isolation (and potential extirpation) of species within the Tucson Mountains. *Report* at 51- 53. As the FEIS states:

Wildlife movement across the aqueduct is necessary to permit bisected populations to maintain gene flow and to allow use of habitat on both sides of the aqueduct. . . [t]he most effective way to insure that wildlife movements would continue after aqueduct construction would be to provide an open, undeveloped corridor across the aqueduct in an existing wildlife movement path. . .

The four sections of Arizona State Trust Land at T.14 S. R.11 E. Sections 10, 11, 14 and 15 and the privately owned Section 2 SW-1/4 contain palo verde-mixed cacti, mesquite and creosote-bursage habitat types which are extensively used by wildlife, and provide a well-established wildlife movement corridor from the Saguaro National Monument and Tucson Mountain Park to the Garcia Strip of the Papago Indian Reservation and other points west and southwest of the Tucson Mountains. The parcel borders on both the Park and the Reservation, insuring a permanently open corridor in and out of the mountains regardless of future development patterns in the Avra Valley¹³.

¹¹ deVos, et al., 1983. *Biological Resource Inventory, Tucson Division, Phase B Central Arizona Project*. 470 pp.
deVos, et al., 1985. *Final Report for the Biological Resources Inventory, Tucson Division, Phase B Central Arizona Project*. 125 pages.

¹² Because no federally-listed candidate, threatened or endangered wildlife species were identified as present at the project site, the mitigations for the CAP aqueduct are entirely concerned with mammals, songbirds, game birds, raptors, reptiles and amphibians managed by the Department as trust resources for the citizens of Arizona.

¹³ Final EIS at 42.

The key commitment of BOR as mitigation for the CAP aqueduct severing wildlife movement was the acquisition of the 4.25 square miles to serve as a wildlife corridor between the Tucson Mountains and points west. As stated by the Fish and Wildlife Service, without the acquisition of the Tucson Mitigation Corridor, the other mitigation measures were “grossly inadequate” and would have likely resulted in FWS withdrawal of support for BOR’s preferred West Side Plan.¹⁴

Both the biological resource inventory and the wildlife mitigation measures for the Phase B CAP aqueduct were developed under the Fish and Wildlife Coordination Act (FWCA) as well as the National Environmental Policy Act (NEPA).¹⁵ The wildlife mitigation commitments are described in Appendix F of the ROD, also referred to in the FEIS as the “Fish and Wildlife Coordination Report”.¹⁶

Following acquisition of the tract, and pursuant to the Fish and Wildlife Coordination Act, the Secretary of the Interior entered into a *Cooperative Agreement For the Use of Project Lands for Wildlife and Plant Conservation and Management, Tucson Mitigation Corridor, Central Arizona Project* (1990) with the Arizona Game and Fish Department and the Pima County Board of Supervisors as parties. The Cooperative Agreement provides that Pima County will manage TMC as part of the Tucson Mountain park system for the conservation and management of wildlife and plants with funding from BOR. Prohibited activities include, *inter alia*, any future development other than existing wildlife habitat improvements or developments agreed to by BOR, the Arizona Game and Fish Department, FWS and Pima County. Also prohibited are the discharge of firearms, trapping, and off-road vehicles (Cooperative Agreement at Sec. II.2), which in effect incorporate the restrictions set forth in Arizona Game and Fish Commission Rule R12-4-802(A)(31) for the Tucson Mountain Wildlife Area.

Wildlife are using the TMC. The efficacy of the TMC and the other mitigations as wildlife landscape linkages was confirmed in subsequent reports funded by BOR and the U.S. Geological Survey. Populations of desert mule deer and javelina use all crossings throughout the year.¹⁷ Numerous species were identified in the Tucson Mountains in a University of Arizona infrared-triggered trail camera study, including mountain lions, which require biological corridors as linkages to large core habitats and are most likely entering and leaving the Tucson Mountains to the west. Ten infrared cameras located at the CAP canal documented bobcats, coyotes, collared peccaries, mule deer, and a badger, evidence that “the CAP wildlife mitigation corridors are

¹⁴ *Comments of the Fish and Wildlife Service to Draft EIS for the Central Arizona Project, Tucson Aqueduct Phase B* at 3.

¹⁵ *Draft Fish and Wildlife Coordination Act Report for Phase B of the Tucson Aqueduct, Central Arizona Project, Tucson Division, Arizona* (USFWS 1983). See *Central Arizona Project Fish and Wildlife Coordination Act Report on Tucson Aqueduct Phase B for U.S. Bureau of Reclamation* (Fish and Wildlife Service, March 1984 (wildlife report prepared pursuant to Section 2(b) of FWCA and in coordination with AGFD); *Comments of the Fish and Wildlife Service to Draft EIS for the Central Arizona Project, Tucson Aqueduct Phase B*, page 1 (February 14, 1985).

¹⁶ Final EIS at Table 38.

¹⁷ Tull, J.C. and P. R. Krausman, 2001. *Use of a Wildlife Corridor by Desert Mule Deer*. The Southwest Naturalist 46(1):81-86; Popowski, R. and P. R. Krausman, 2002. *Use of Crossings Over the Tucson Aqueduct by Selected Mammals*. The Southwest Naturalist 47(3):363-371.

functioning” as designed.¹⁸

In an effort to maintain wildlife habitat connectivity in southern Arizona, the Arizona Game and Fish Department, in collaboration with the Regional Transportation Authority (RTA) of Pima County and many other partner organizations, held a series of workshops to identify wildlife connectivity areas in Pima County. Once the County-level workshop was completed and associated data was compiled into a report¹⁹, AGFD and the RTA chose a set of priority linkages from those identified at the workshops to model with the ultimate goal of having a linkage design with sufficient detail that could serve as a guideline for future land use, conservation and transportation planning in the region. One of the five priority areas focuses on supporting the daily and seasonal movement and habitat needs of wildlife between the Coyote Mountains, Ironwood Forest, and the Tucson Mountains. This *Linkages* study was published in August 2012, and is a GIS-based linkage design based on fourteen focal wildlife species (eight mammals, including mule deer and desert bighorn sheep, five reptiles, and one amphibian).²⁰

The *Linkages* study identifies wildland blocks which are relatively undeveloped lands with existing conservation protections that currently serve as habitat blocks for various wildlife species. Three wildland blocks were used in the *Linkages* study: the Coyote Mountains; Ironwood Forest National Monument, including part of the Roskrige, Silver Bell, and Sawtooth Mountains; and the Tucson Mountains, including the Tucson Mitigation Corridor, Saguaro National Park, and Tucson Mountain Park. These wildland blocks are separated by various topographic features, including the steep terrain of the Roskrige Mountains between the Coyote and Ironwood wildland blocks, and the flat lands of Avra Valley between the Ironwood and Tucson wildland blocks. The *Linkages* study features habitat suitability maps and “biologically best corridors” for species to travel from a potential population core in one wildland block to another wildland block, and identifies Saguaro National Park, Tucson Mountain Park and the TMC as a wildland block, linking species to the Ironwood Wildland Block and the Silverbell and Roskrige Mountains. Refer to Attachment C for a map of the *Coyote-Ironwood-Tucson Linkage Design*.

The *Linkages* study concludes that establishment of the Tucson Mitigation Corridor and the numerous CAP canal siphons have greatly increased the permeability of the CAP canal and wildlife connectivity within the Tucson Mitigation Corridor, allowing the movement of various wildlife species.²¹

Desert bighorn sheep recently documented in the Tucson Mountains. The *Linkages* study noted the “massive declines” of bighorn sheep populations caused in part by barriers to movement such as roads and range fences. Small, isolated groups of desert bighorn sheep experience highly fragmented distribution and are susceptible to extirpation.²²

¹⁸ Haynes, et. al., 2010. *Mountain Lions and Bobcats of the Tucson Mountains: Monitoring Population Status and Landscape Connectivity* at 13 and Tables 1 and 2. University of Arizona Wild Cat Research and Conservation School, University of Arizona.

¹⁹ http://www.azgfd.gov/w_c/documents/PimaCountyWildlifeConnectivityAssessment.pdf

²⁰ http://www.azgfd.gov/w_c/documents/CoyoteIronwoodTucson_LinkageDesign_lowres.pdf

²¹ *Id.* at 38.

²² *Id.* at 85.

As stated in the *Linkages* study, desert bighorn sheep historically used both the Coyote and Tucson wildland blocks, but did not have population distributions within these blocks as of 1960. The desert bighorn sheep population that exists primarily in the West Silver Bell and Silver Bell Mountains within the Ironwood wildland block today represent “one of the last viable desert bighorn sheep populations indigenous to the mountains surrounding Tucson”. Restoration of habitat and permeability offers an opportunity for desert bighorn sheep populations in the Ironwood Wildland Block to achieve landscape connectivity with historical former habitats.²³

As seen in Attachment D, documented bighorn sheep sightings occurred in 2016 in Saguaro National Park and Tucson Mountain Park and to the west toward the Silver Bell Mountains. Department biologists believe these sheep are dispersing from the Silver Bell and Waterman Mountains (directly south of Silver Bell Mountain Range) sheep populations. Because of the close proximity of these ranges and the isolation of the area due to multiple interstates, state highways, and the city of Tucson, it is unlikely that the sheep in the Tucson Mountains dispersed from another population, such as the population in the Santa Catalina Mountains to the east.

Conclusion. The primary and original purpose of the Tucson Mountain Wildlife Area was to restore and conserve sustainable desert mule deer populations in the Tucson Mountains. The publicly owned lands within the Wildlife Area continue to serve that purpose today for many species of wildlife, as well as providing recreational hunting and wildlife viewing opportunities.

The Department’s position is that the publicly-owned portions of the Tucson Mountain Wildlife Area, comprising the Tucson Mountain District of Saguaro National Park, Tucson Mountain Park, and the Tucson Mitigation Corridor, qualify as a Section 4(f) property in the category of a significant state recreation area and state wildlife refuge pursuant to 23 U.S.C. § 138, 49 U.S.C. § 303 and 23 CFR 774.11.

The Department values FHWA’s and ADOT’s coordination with us on this important transportation project. If you have any questions or wish to further discuss this information, please contact Cheri Bouch r, the Department’s Project Evaluation Program transportation coordinator, at cboucher@azgfd.gov (623-236-7615).

Sincerely,



Jim deVos

Wildlife Management Assistant Director

cc: Rebecca Yedlin, FHWA

Aryan Lirange, FHWA

Jay VanEcho, ADOT Project Manager

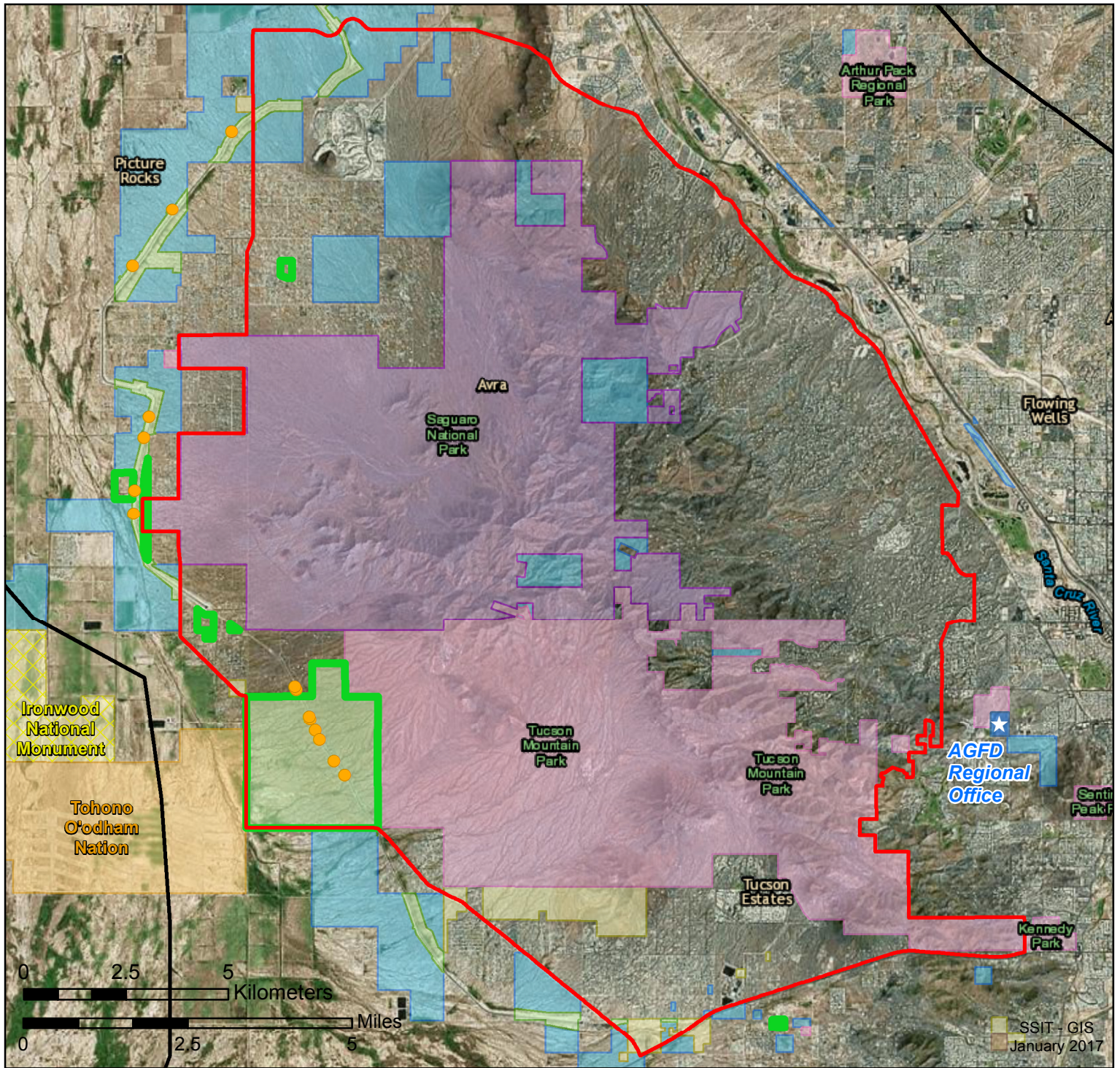
Lisa Ives, AECOM Consultant Team Project Manager

Tab Bommarito, U.S. Bureau of Reclamation

²³ *Id.* at 86.

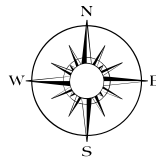
Attachment A
Map of the Tucson Mountain
Wildlife Area

AGFD Tucson Mountain Wildlife Area

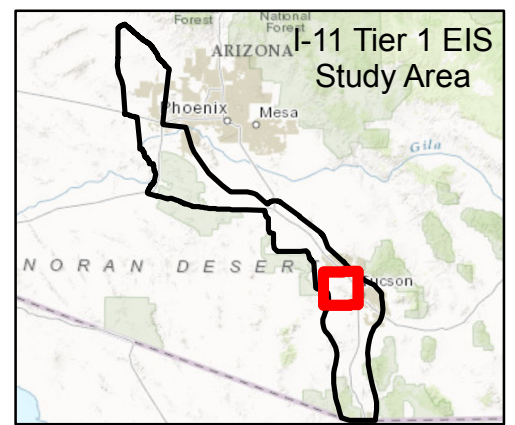


SSIT - GIS
January 2017

- CAP Designated Wildlife Crossings
- Tucson Mitigation Corridor & Assoc. Parcels
- I-11 Study Area Corridor
- AGFD Tucson Mountain Wildlife Area
- XXXX BLM Ironwood National Monument
- Land Owners (Private Excluded)**
 - AGFD Regional Office
 - Bureau of Land Management
 - City or County Parks



- Tohono O'odham Nation
- Saguaro National Park
- Bureau of Reclamation
- County Land
- State Trust



Attachment B

Tucson Mountain Wildlife Area Hunting Pamphlet



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

REG:ON V, 555 N. GREASEWOOD ROAD, TUCSON, AZ 85745

GOVERNOR
JANICE K. BREWER

COMMISSIONERS
CHAIRMAN: ROBERT E. MANSELL, WINSLOW
KURT R. DAVIS, PHOENIX
EDWARD "PAT" MADDEN, FLAGSTAFF
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J.W. HARRIS, TUCSON

DIRECTOR
LARRY D. VOYLES

DEPUTY DIRECTOR
TY E. GRAY



Dear Sportsman:

The Tucson Mountain Wildlife Area, which includes Tucson Mountain Park, has been open to hunting for decades. It is the responsibility of hunters to ensure that this remains true for decades to come. Every year the Arizona Game and Fish Department receives several complaints from landowners about the actions of unethical hunters. Some of those landowners intend to contact their City Council Representatives, County Supervisors, and the Arizona Game and Fish Commission to further restrict or eliminate hunting in the area. Your behavior reflects on all hunters and we need your help.

Areas open to hunting do not include areas within municipal parks, municipal preserves, county parks, county preserves, airports, golf courses, or posted water treatment facilities (except as specifically opened by the Arizona Game and Fish Department Commission) or areas closed to hunting under Arizona Revised Statutes 17-303 and 17-304 or Commission Rules R12-4-321, R12-4-801, and R12-4-802 and R12-4-803. Saguaro National Park is also closed to hunting.

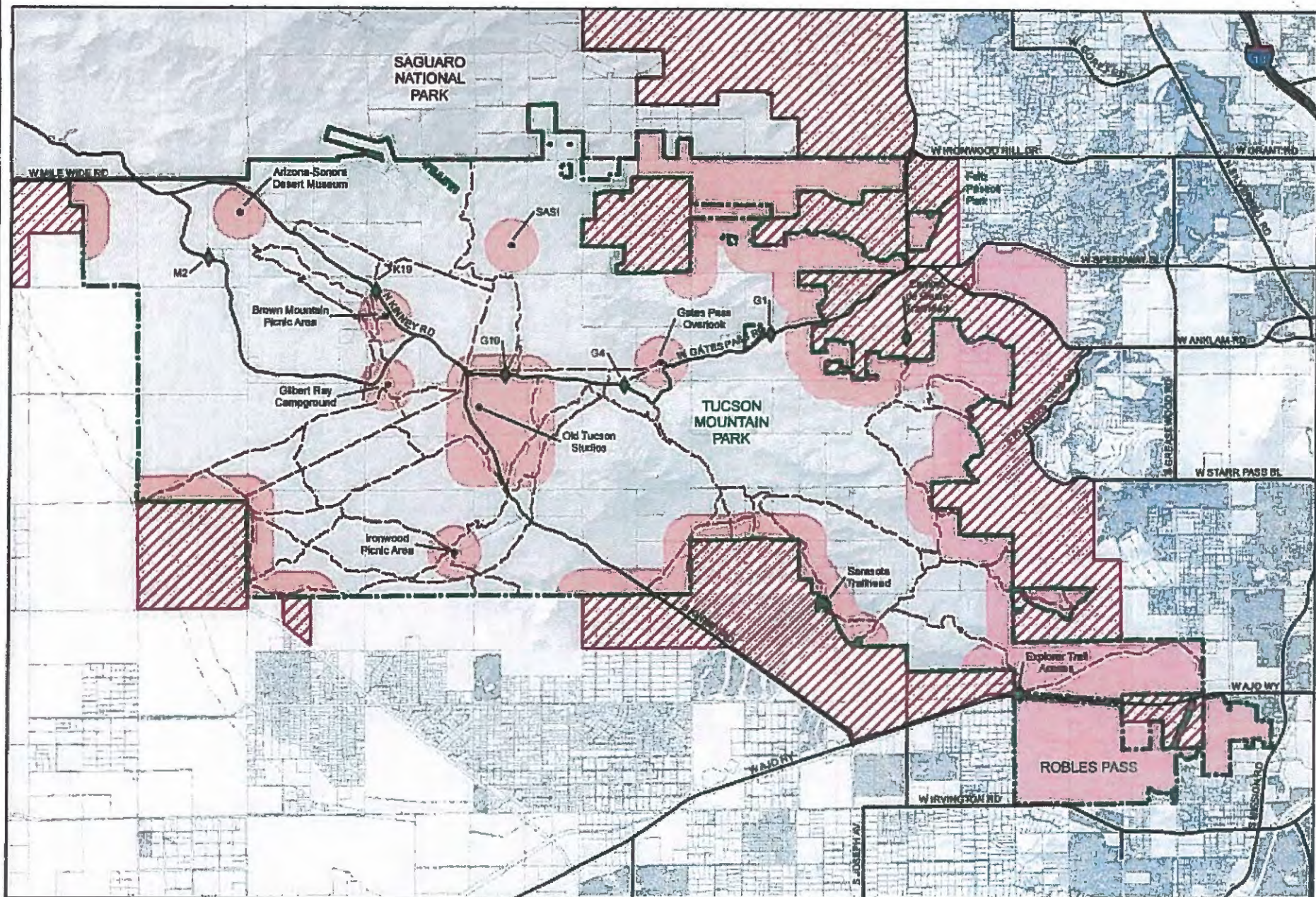
Tucson Mountain Park is opened to hunting for archery-only (see regulations for open seasons). Hunting in County parks, opened by the Commission, is not permitted within 1/4 of any developed picnic area, developed campground, shooting range, occupied building, or golf course (developed areas do not include trails). A copy of the Tucson Mountain Park closure areas map is available at the Pima County Parks and Recreation Office, the Arizona Game and Fish Department Tucson Regional Office, and online at <http://www.pima.gov/nrpr/parks/tmp/index.htm>. Sweetwater Preserve, Robles Pass, Feliz Paseos Park, and any other county owned land within the Tucson Mountain Wildlife Area is closed to hunting by Commission Order. The land ownership of many Tucson metropolitan areas has changed in recent months and what was open to hunting in past years may no longer be available for hunting. Don't assume the areas are open and consult the map often.

Avoid any roads or parking areas that indicate the property is privately owned and/or closed to hunting, especially Sweetwater Drive, Trails End Road, or Tucson Estates Parkway. Hunters who cruise up and down residential roads looking for game reflect poorly on hunters who rightfully avoid using motor vehicles as hunting aids. Do not park near 'No Parking' or 'No Trespassing' signs.

Be respectful and do not enter land posted with 'No Trespassing' or 'No Hunting' signage, regardless of whether it is posted in accordance with Title 17 (Game and Fish laws) or Title 13 (Criminal laws). Hunters must also leave private unposted land if asked to do so by the owner or any other person having lawful control over the property. Hunters who walk down driveways, alongside homes, and enter backyards of unposted private property or undeveloped lands without asking for permission aggravate local sensitivities and increase anti-hunting sentiments by landowners.

Every time you take to the field you represent the hunting community. Be aware of your actions and keep in mind that common sense, courtesy and responsible behavior will help maintain urban hunting opportunities into the future. Help us keep opportunities open by using the OGT Hotline [1-800-352-0700] to report wildlife violations.

THIS MESSAGE IS BROUGHT TO YOU IN PARTNERSHIP BY THE ARIZONA GAME AND FISH DEPARTMENT AND PIMA COUNTY NATURAL RESOURCES, PARKS AND RECREATION DEPARTMENT



**TUCSON MOUNTAIN PARK
ARCHERY HUNTING
CLOSURE ZONES
DECEMBER 2014**

- Archery Hunting Closure Areas
- Residential Zones

- Hunter Access Parking
- Designated Trails

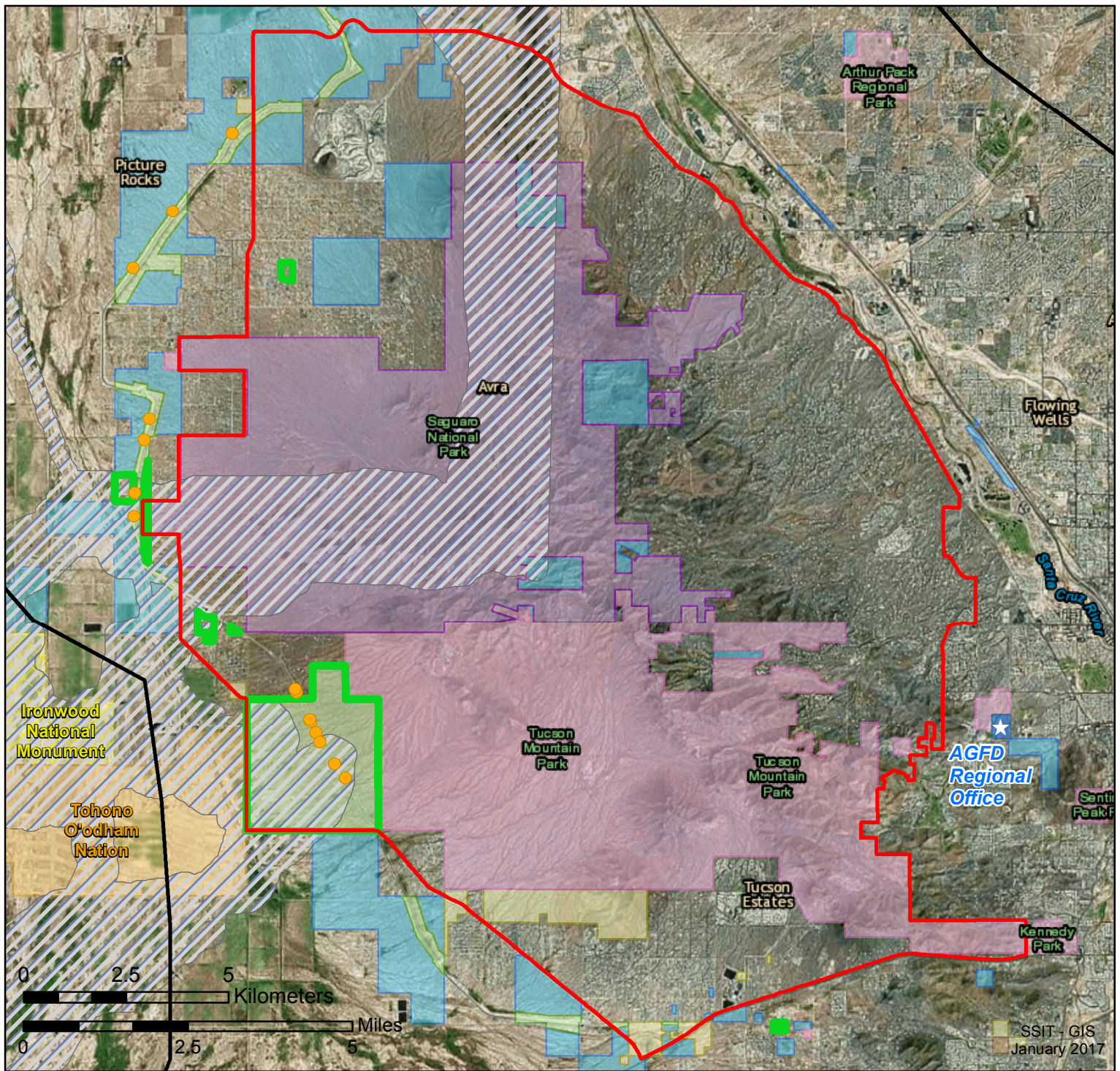
Residential Zones:
Avoid Hunting in These Areas. Written
Landowner Permission Recommended.



Attachment C
Map of the
Coyote-Ironwood-Tucson
Linkage Design

AGFD Tucson Mountain Wildlife Area

with Detailed Linkage Design for Coyote/Ironwood/Tucson area



Coyote/Ironwood/Tucson Detailed Linkage Design

CAP Designated Wildlife Crossings

Tucson Mitigation Corridor & Assoc. Parcels

I-11 Study Area Corridor

AGFD Tucson Mountain Wildlife Area

BLM Ironwood National Monument

Land Owners (Private Excluded)

AGFD Regional Office

Bureau of Land Management

City or County Parks

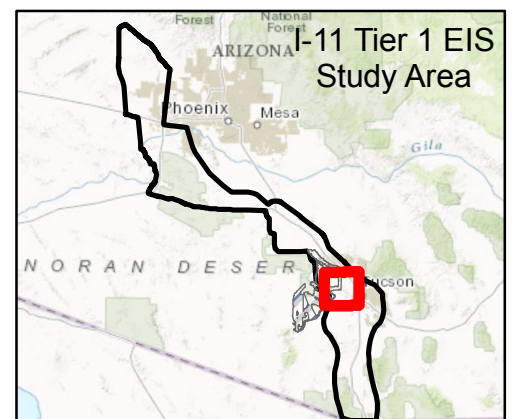
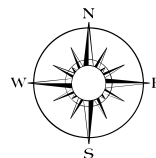
Tohono O'odham Nation

Saguaro National Park

Bureau of Reclamation

County Land

State Trust



Attachment D
2016 Tucson Mountain Bighorn
Sheep Observations

Bighorn sheep – Tucson Mountain District of Saguaro National Park – Summary 2016

In 2016, bighorn sheep were sighted in the Tucson Mountains for the first time in decades, including in the Tucson Mountain District (TMD) of Saguaro National Park (SNP). This document is a summary of these records in and near the park.

1. March 13, 2016- A Tucson Mountain resident emailed SNP with pictures attached. The resident saw two young bighorn sheep next to the fence that separates Camino Del Sapo from the Central Arizona Project (CAP) canal property, approximately ½ mile away from Mile Wide Rd.



Bighorn south of Mile Wide Road, March 13, 2016.

2. March 15, 2016- A Park volunteer identified a picture taken by a visitor as two bighorn sheep on Wasson Peak.

3. March 17, 2016- A wildlife camera EE6, which was located in the north fork wash, just NE of the TMD Visitor on Kinney Road, recorded a bighorn sheep photograph on March 13, 2016. The location is about one mile from where a Tucson Mountain resident saw the sheep (Record #1 above). The camera was set by middle schoolers as part of an environmental education program called the “Lost Carnivores.”



Photo taken by wildlife camera near Visitor Center at TMD, March 13, 2016.

An article entitled “Pair of bighorn sheep spotted in Saguaro West; first since ‘50’s” was published in The Arizona Daily Star by Doug Kreutz on March 17, 2016. This article covered the first sighting of two young rams (#1 above), and published the wildlife camera photo from the TMD Visitor Center (#3 above). This news was picked up by a number of outlets.

4. March 22, 2016- A bighorn sheep picture was posted on the National Park traveler Facebook page. The ram was seen about 4 miles from Hugh Norris trailhead.

5. March 25, 2016- Photo by a Park intern of sheep crossing Ajo Way near Cat Mountain.



Photo taken of 2 bighorn that crossed Ajo Road near Cat Mountain on March 25.

Pima County published an article on April 1, 2016 about this sighting; the two rams are assumed to have come from the Ironwood Forest National Monument.

6. April 3, 2016- Park intern identified bighorn sheep scat at TMD. The intern estimated that the scat was approximately 3 weeks old.



7. April 24, 2016- A visitor emailed the Park to inform them that he had seen a young male bighorn sheep at the north end of the Tucson Mountains at the El Rio Open Space Preserve.



Photo taken at north end of Tucson Mountains by Andrew Core on April 24, 2016.

On April 27, 2016 The Arizona Daily Star published an article written by Doug Kreutz titled "Tucson's travelin' ram seen again, spotted in Continental Ranch area". A picture by the Park visitor is in the paper. The bighorn sheep were spotted at the El Rio Open Space site which is at the north end of Continental Ranch.

8. July 12, 2016- A local conservationist contacted the Arizona Game & Fish Department (AGFD) and stated two bighorn sheep were spotted at the west end of Tucker Rd in a cotton field. It was reported that they have been around for about 3 weeks at this time.
9. September 2, 2016- A newspaper article in the Arizona Daily Star, written by Doug Kreutz, titled "Another bighorn spotted in Tucson Mountains" was published online. The sheep was spotted and photographed in the Picture Rocks area. The article goes on to state that it is possible that the individual was from the Ironwood Forest herd since earlier this year two ram had been confirmed to have come into the area from the Ironwood Forest National Monument. This herd of individuals is different than that of the individuals in the Catalina Mountains that have been re-established.



10. On September 16, 2016 SNP received an email from a local biologist who saw a bighorn sheep ram at 6:30 A.M. that looked to be in good shape with full horns. The location is a bit uncertain but it was a small bump on the road on Picture Rocks near Sandario as he was traveling to Ajo.

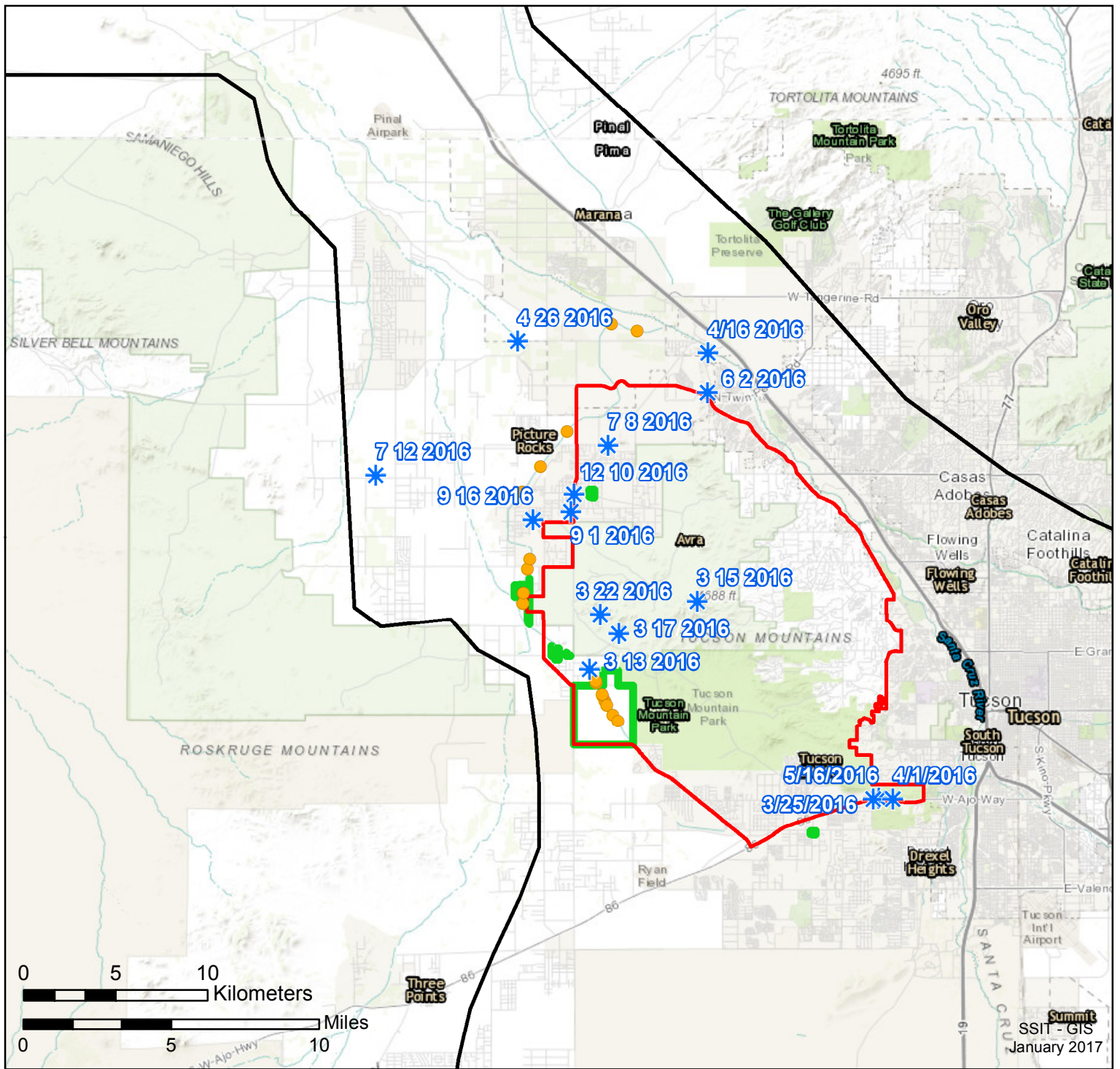
Historic Sighting

Oct. 17, 2016 a letter was written to the park from a local about a bighorn sighting in the Tucson Mountains in 1947. He said he had hiked up the entrance road for Trails End Ranch and hiked up beyond it past one or two large check dams that had been filled with sand and gravel. On the first day he saw a ram looking over a cliff edge and a ewe and lamb running across the cliff face, he did not however have a camera on him. So, he returned the next day and was able to photograph a ram; he did not see the ewe or lamb on the second day. The picture, which he included, was taken on January 31, 1947. He was writing to the park out of curiosity if the park still had bighorn sheep today.



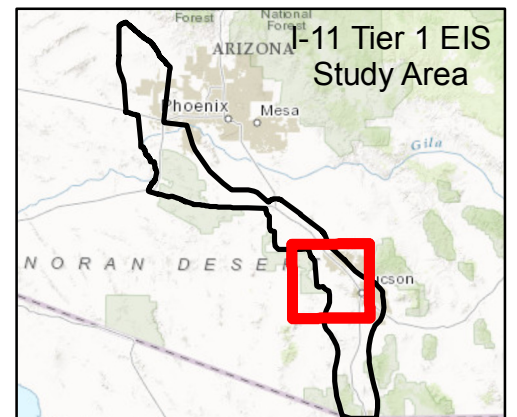
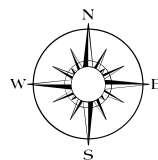
AGFD Tucson Mountain Wildlife Area

2016 Bighorn Sheep Sightings



2016 Bighorn Sheep Sightings

- * 2016 Bighorn Sheep Sightings
- CAP Designated Wildlife Crossings
- I-11 Study Area Corridor
- AGFD Tucson Mountain Wildlife Area
- Tucson Mitigation Corridor and Associated Parcels



Summit
SSIT - GIS
January 2017



Figure 1. The Tucson Mitigation Corridor and the nearby Tumamoca Preserves

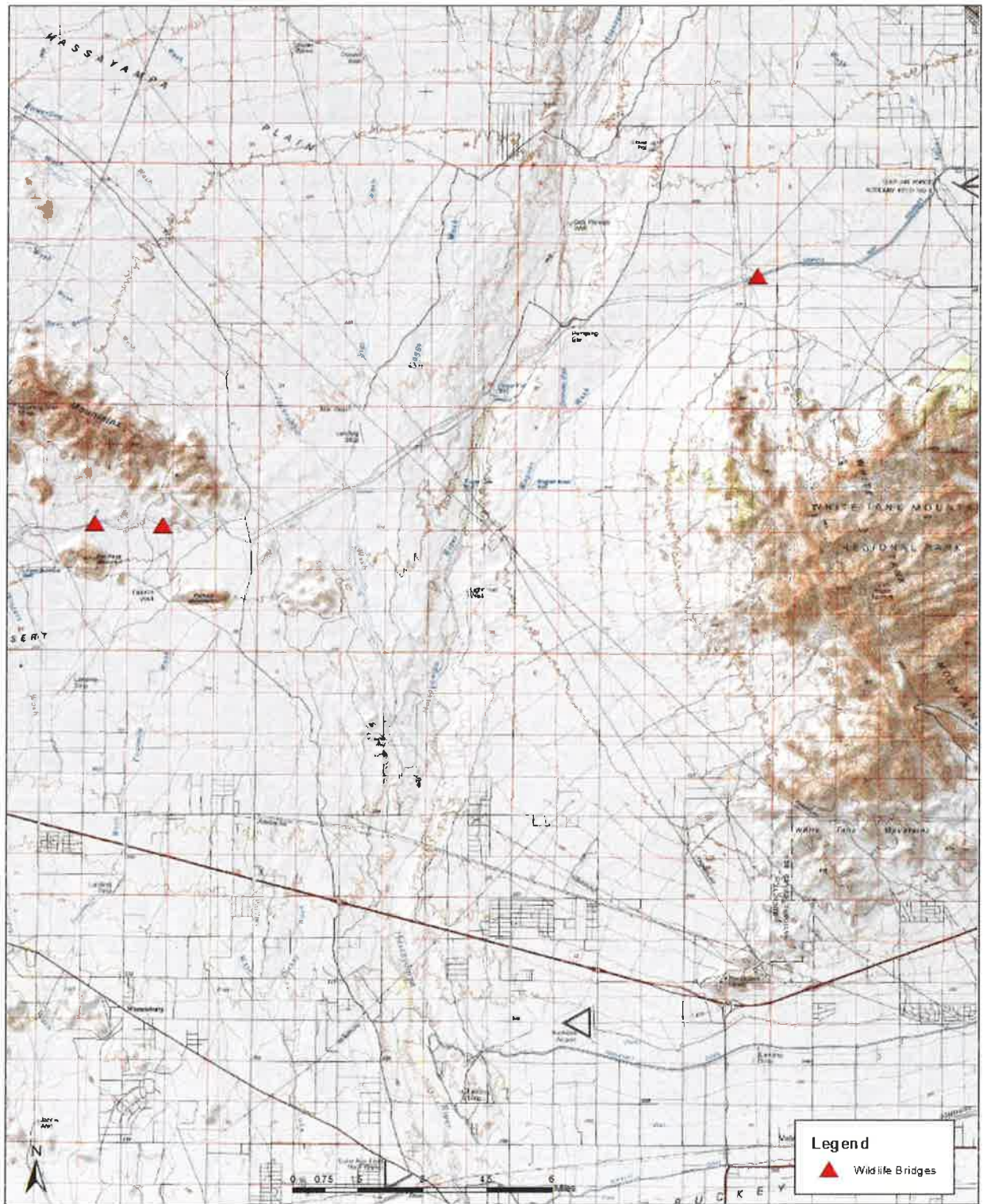


Figure 2. Location of CAP Wildlife Bridges within the Hassayampa River Valley

MEETING PURPOSE: Meeting with AGFD to discuss GIS data provided for I-11

DATE & TIME: March 7, 2017, 1:00 – 2:30

LOCATION: AGFD Headquarters
5000 W Carefree Hwy, Phoenix, AZ 85086

ATTENDEES: Cheri Boucher, AGFD; Julie Mikolajczyk, AGFD, Anita Richardson, AECOM; Jennifer Pyne, AECOM (via WebEx); Jaclyn Kuechenmeister, CH2M Hill (via WebEx); Doug Smith (AECOM)

MEETING NOTES

Purpose: Discussion of AGFD GIS data that was provided for the Alternatives Selection and Environmental Impact Statement evaluations.

After brief introductions and overview, Julie M. took the lead in going through the GIS data layers that AGFD had provided to the I-11 Team. Two of the primary GIS files were the Avoid 1 and Avoid 2. There was also an Avoid 3, which included areas of lesser concern than Avoid 1 or 2.

Avoid 1 areas should be avoided if at all possible and represent the most critical areas from a wildlife perspective. The Avoid 1 areas include wildlife management areas, large intact blocks, and high-value habitat. The wildlife management areas include land owned by AGFD (deeded) and areas owned by other governmental agencies but managed by AGFD (managed). Included within these are PLO 1015 lands. These lands were withdrawn from the Bureau of Land Management (BLM) jurisdiction in 1954 and “reserved under the jurisdiction of United States Fish and Wildlife Service [USFWS] for wildlife refuge purposes”. The USFWS has a cooperative agreement with AGFD under Section 6 of the Endangered Species Act to manage the lands in connection with the Gila River Waterfowl Project. Within the Gila River area, along SR 85, the wildlife refuges are immediately adjacent to the road right-of-way. Cheri thought that the road existed prior to establishment of the refuges and was widened subsequent to the establishment of the refuges.

“Areas with high landscape integrity” refers to the intact blocks. This data layer categorizes the degree of human modification to the landscape, such as roads, population clusters, airports, large impervious surfaces, etc., with the intent to preserve areas with minimal modification. Typically, large intact blocks tracts of land are 5,000 acres or larger. Category 1 tracts have essentially no human modification. Category 2 areas have limited human modification. The degree of modification was established on a scale of 0 to 3 with 0 being areas with dirt roads or power lines and 3 being areas with some development, such as houses and paved roads.

From a wildlife perspective, AGFD is concerned with fragmenting and isolating large intact blocks. For example, one area of concern is in the Avra Valley area where the proposed alternatives have been placed between the Tohono O’odham Nation and a large Wildlife Management Area. The Wildlife Management Area includes Saguaro National Park, Tucson Mountain Park, and the Tucson Mitigation Corridor. In this area, the Bureau of Reclamation has invested in wildlife bridge crossings

of the Central Arizona Project (CAP) Canal at considerable cost. Based upon the GIS layers of the preliminary alternatives, a proposed corridor overlaps the Wildlife Management Area. All of this area is important in the movement of wildlife between the Wildlife Management Area and the mountains to the west. AGFD is working on identifying what mitigation could look like if I-11 were to go through this area.

The Tucson Mitigation Corridor (TMC) and the Tucson Mountain Wildlife Area are owned by a variety of parties, and although a management agreement is not in place for the full area, AGFD has signatory authority for changes to the TMC. The intended outcomes from establishing the TMC include keeping certain threatened species from being listed, and to implement crossings along the CAP canal. The concern is that I-11 in this area could cause these crossings to lose their functionality. A mitigation package would be identified as part of any alternative in the vicinity of TMC, and AGFD noted that the cost of mitigation should be accounted for.

A second area of concern is the Rainbow Valley Area connecting the Sierra Estrella Mountains with areas to the west such as Margies Peak – Sheep Mountain and the Gila Bend – North Maricopa Mountains. Cheri stated that generally, AGFD would view road widening as less impactful with regard to habitat fragmentation than new roadways. AGFD raised concerns about the options P, O, and L.

There was also discussion of the area north of 1-10 within the study area. This area is largely undeveloped with the White Tank Mountains to the east, the Hassayampa River corridor, and the proposed Vulture Mountain Recreation Management Area to the west. As part of the general discussion, AGFD suggested that the alternatives west of the Vulture Mountain Recreation Area would be preferred by the agency, versus the alternative that uses US 60/US 93. While the alternative located closer to the White Tank Mountains would be closer to the edge of the large tract of undeveloped or minimally impacted land, it would put the corridor within the Hassayampa River area, which is of high wildlife value.

AGFD stressed that research prior to preparing the Tier 2 documents to determine population levels and wildlife movements across the selected Tier 1 corridors would be appropriate mitigation at the Tier 1 stage, so that the best mitigation could be determined at the more detailed Tier 2 level. Another potential mitigation approach would be to identify easements to protect sensitive areas from indirect impacts.

Additional discussion points are listed below.

Key Discussion Points/Action Items:	Responsible Party / Action Item
1. Wildlife areas along the Gila River include deeded and managed lands, with managed lands owned by other federal and state agencies. Within some of the broader land areas are parcels of private land not managed by AGFD. The wildlife areas would be considered Section 4(f) properties, and many were purchased using Section 6(f) funds.	
2. Quality of habitat is included within the Landscape Integrity data provided by AGFD. The quality has been determined either through modeling or expert opinion. Both methods of determination are given equal weight.	
3. Indirect impacts are of equal concern as direct impacts and need to be addressed.	
4. AGFD has concern over habitat isolation, as well as fragmentation. The isolation may take place if a corridor cuts off key linkages between large habitats.	
5. Mitigation for wildlife identified in this Tier 1 EIS may include research	

Key Discussion Points/Action Items:	Responsible Party / Action Item
prior to the Tier 2 process. This research would provide the basis for road design mitigation identified as part of the Tier 2 phase.	
6. Scott Sprague is the liaison with ADOT and plays a key role in wildlife mitigation design.	
7. AGFD will forward information previously provided to FHWA regarding AGFD properties within the I-11 Corridor and a description of the Tucson Mountain Wildlife Area.	Cheri Boucher (received 3/8/17)
8. AGFD intends to comment on the ASR Methodology Report with a request for an additional evaluation criterion for habitat fragmentation/isolation.	

c Document Control



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
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DIRECTOR

LARRY D. VOYLES

DEPUTY DIRECTOR

TY E. GRAY



June 1, 2017

Rebecca Yedlin
FHWA Environmental Coordinator
Federal Highway Administration
4000 N. Central Ave., Suite 1500
Phoenix, AZ 85012

Re: AGFD Comments for the I-11 Tier 1 EIS Alternatives Selection Report Public Open House

Dear Ms. Yedlin:

The Arizona Game and Fish Department (Department) recently attended the May 2017 Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) Cooperating/Participating Agency Meetings and Public Information Meetings that provided preliminary information on the *Alternatives Selection Report (ASR)* for the Tier I Environmental Impact Statement (EIS) process for the I-11 Corridor.

The Department appreciated this opportunity to participate in the meetings, and has the following comments regarding the preliminary ASR information:

- The Department was pleased to see ADOT's recommendation that Segments V (Vulture Mountains), O and P (Arlington Valley), and J (Vekol Valley), not move forward into the EIS for further analysis. These segments all traverse areas of high quality habitat and very sensitive biological resources.
- The portion of Interstate 10 (I-10) between S/T/U and Q should be considered a segment for evaluation. This allows more for more flexibility in identifying connections between the North and Central Study Areas.
- The Department was pleased to see ADOT's recommendation to evaluate a connection between Segments E/F (Santa Cruz Valley) and B (I-10). This allows more for more flexibility in identifying connections through the South Study Areas.

Ms. Rebecca Yedlin

AGFD Comments- Alternatives Selection Report Public Open House

June 1, 2017

2

It is noted that ADOT did not incorporate the Department's criteria recommendations into the May 2017 *Alternative Selection Report Methodology and Criteria Report*. Additionally, only one of the Department's many comments was acknowledged in the May 2017 Comment Response Summary for the *Alternative Selection Report Methodology and Criteria Report*. Had the ASR Methodology and Criteria included habitat fragmentation and loss, it is likely that one or more of the Segments would have been ranked differently. For example, Segment M bisects a large block of primarily intact habitat; the parameters used by ADOT did not capture the significant habitat fragmentation and loss that would occur due to this segment bisecting the East Buckeye Hills and the Maricopa Mountains.

- The Comment Response Summary for the *Alternative Selection Report Methodology and Criteria Report* should be revised to include the Department comments that were submitted to ADOT/FHWA on March 17, 2017. The comments were submitted exactly 30 days from receipt of the Draft report for review.
- Moving forward, the criteria suggested in the Department's March 17, 2017 letter should be included as criteria for analysis of the Alternatives in the Tier 1 EIS. Additionally, indirect impacts to all of the Sensitive Environmental Resources criteria should be analyzed, as the direct impacts alone do not capture the landscape level effects that roadways have to an area.

The Department is currently preparing an extensive report that details wildlife and habitat resources within the I-11 Tier 1 EIS (Wickenburg to Nogales) Study Area. This document will provide expert knowledge of resources within the study area. In the coming weeks, the Department will submit this to ADOT/FHWA for inclusion into the Draft EIS.

The Department trusts our comments and recommendations for *Alternative Selection Report* and its associated *Criteria and Methodology Report* will aid in your alternative selection and evaluation. We continue to look forward to collaborating with FHWA and ADOT on this important transportation project. If you have any questions or wish to further discuss our comments and concerns, please contact me at cboucher@azgfd.gov (623-236-7615).

Sincerely,



Cheri A. Bouchér

Project Evaluation Program Specialist

Arizona Game and Fish Department

cc: Aryan Lirange, FHWA
Jay Van Echo, ADOT Project Manager
Lisa Ives, AECOM Consultant Team Project Manager
Jennifer Pyne, AECOM Associate Vice President
Clifton Meek, EPA

MEETING PURPOSE: Pre-Scoping Meeting with State Historic Preservation Office (SHPO)

DATE & TIME: April 27, 2016, 11:00 AM

LOCATION: SHPO, 1100 W. Washington St., Phoenix, AZ

ATTENDEES: Jay Van Echo (ADOT), Joanie Cady (ADOT), Rebecca Yedlin (FHWA), Aryan Lirange (FHWA), Lisa Ives (AECOM), Jennifer Pyne (AECOM), Gene Rogge (AECOM), David Jacobs (SHPO), Mary- Ellen Walsh (SHPO), Jim Garrison (SPHO), Lauren Clementino (ADOT)

MEETING NOTES

Purpose: Meet prior to formal scoping to present preliminary project information, answer questions, and discuss communication protocols going forward.	
Key Discussion Points/Action Items:	Responsible Party / Action Item
1. Jay van Echo provided a history of the I-11 Corridor.	N/A
2. The Notice of Intent (NOI) is expected to publish in late May 2016, and public and agency scoping meetings will be scheduled. The Tier 1 EIS will build upon the prior studies.	N/A
3. Lisa Ives discussed the approach to a Tier 1 EIS and how it differs from the more typical NEPA processes; the purpose of Quantm; and how the team intends to combine FEIS with a ROD in accordance with MAP-21. The group discussed that the Tier 1 ROD would clear a 2000 foot corridor based on typical sections. Lisa also explained that the Tier 1 EIS would also identify segments of independent utility that, as funding became available, could be advanced as individual projects.	N/A
4. David Jacobs asked whether Quantm could address a range of sensitivities. During this early phase of alternatives analysis, the team has identified major cultural resources (i.e., National Historic Landmarks and properties listed in the National Register of Historic Places) and labeled them as high constraints. David suggested that at least 3 categories of sensitivity be considered. To protect what is most important (including in areas that have not yet been surveyed) would probably require consideration of traditional cultural resources based on tribal input, major waterways, and ethnographic/cultural landscapes.	The study team will assess methodology and coordination during ASR and EIS phases.
5. David recommended that the tribes be engaged early in the process including during alternatives development and screening. The group discussed accelerating some aspects of the cultural data collection work to the ASR phase and/or developing a sensitivity map during the ASR process.	The study team will assess methodology and coordination during ASR and EIS phases.

Purpose: Meet prior to formal scoping to present preliminary project information, answer questions, and discuss communication protocols going forward.	
Key Discussion Points/Action Items:	Responsible Party / Action Item
6. Potential bottlenecks within the study area from a cultural/historic perspective include the Gila River area, and Ironwood/Picacho Peak area.	N/A
7. Lisa asked about the De Anza National Historic Trail, which the National Park Service maps as a wide swath through the study area. David responded that documentation of the De Anza trail is a corridor identified on the basis of historic documents and there is little physical evidence of the trail. He noted that prehistoric trails cross the study area. He pointed out that foot trails are not constrained like vehicle trails and might have several paths in a broader corridor that converge at passes, watering holes, and other topographic constraints, and the physical evidence of trails often is found at such locations.	N/A
8. Mary-Ellen will be the point of contact for SHPO going forward; cc David Jacobs on correspondence. Letters regarding the Section 106 consultation process will be sent out in late May.	N/A
Next Meeting Date: TBD	

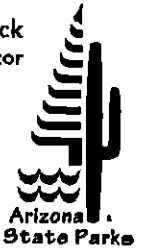
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Attachments: Agenda, Handout



Doug Ducey
Governor

Sue Black
Executive Director



June 7, 2016

Karla S. Petty, Division Administration
U. S. Department of Transportation
Federal Highway Administration
4000 North Central Avenue, Suite 1500
Phoenix, Arizona 85012-3500

Attention: Rebecca Yedlin, FHWA Environmental Coordinator

Re: Multiple counties, I-11 Corridor; Alternatives Selection Report, Tier I Environmental Impact Statement (EIS); Federal Highway Administration (FHWA): SHPO-2014-0246(131230)

Dear Ms. Petty:

The Arizona State Historic Preservation Office (SHPO) accepts FHWA's invitation to be a Participating Agency in the Tier I EIS process for the I-11 Corridor between Nogales and Wickenburg in Santa Cruz, Pima, Pinal, Maricopa and Yavapai counties, Arizona. We understand that the Alternatives Selection Report (ASR) will assess a wide range of corridor alternatives, and that the corridor ranges from 5 to 25 miles wide between Nogales and Wickenburg, Arizona. At a pre-scoping meeting among FHWA, FHWA's environmental consultant, and SHPO on 27 April 2016, we had several comments that we wish to carry forward into this consultation.

1. We strongly recommend that FHWA include interested Native American Tribes in the selection of alternatives. This can be achieved, in part, through ethnographic studies completed early in the Tier 1 process to obtain Tribal perspectives about the 280-mile section of the transportation corridor, rather than later as mitigation to resolve adverse effects of the undertaking to resources and places of traditional cultural value.
2. We recommend that a full Class I inventory of the I-11 corridor, as currently defined, be completed as part of the ASR and Tier I EIS. As explained to us at the above-cited meeting, current plans call for the identification of only those cultural properties and landmarks listed in the National Register of Historic Places (NRHP), an approach that would significantly limit information about potential culturally- and archaeologically-sensitive areas.
3. We advocate preservation of NRHP-eligible and listed resources by using existing infrastructure, where possible, rather than new construction.

State Historic Preservation Office

1100 W. Washington St | Phoenix, AZ 85007 | 602.542.4009 | AZStateParks.com

"Managing and conserving natural, cultural, and recreational resources for the benefit of the people, both in our Parks and through our Partners."

We look forward to working with you on this project. Please contact me by telephone, 602.542.7120, or email, mwalsh@azstateparks.gov, if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Mary-Ellen Walsh".

Mary-Ellen Walsh, M.A. RPA
Archaeological Compliance Specialist
State Historic Preservation Office

I-11 Cultural Resources Update Meeting

Monday, April 16, 2018

1:00 – 2:15 PM

ADOT, 1611 Large Conference Room

Attendees: Rebecca Yedlin (FHWA), Aryan Lirange (FHWA), Linda Davis (ADOT), Jay Van Echo (ADOT), Katie Rodriguez (ADOT), Carlos Lopez (ADOT), Mary-Ellen Walsh (SHPO, by phone), David Jacobs (SHPO by phone), Shearon Vaughn (ADOT, meeting notes)

Meeting Summary

Rebecca Yedlin opened the meeting at 1 p.m. Introductions around the table, with David and Mary-Ellen on the phone.

Jay Van Echo: This project has been in progress since the Notice of Intent in May 2016. Public scoping plans and purpose and need were developed, and public meetings were held. For the draft EIS, the team whittled it down from a universe of alternatives to a reasonable range of manageable alternatives (see *Options Combined...* figure). Figure shows project end-to-end, Nogales to Wickenburg. Team is now in the throes of developing the draft EIS and hope to finish the draft by late summer or early fall of 2018. Then with a year to address comments on the draft, the Final EIS should be complete by fall of 2019, followed by a Record of Decision by the end of 2019. Consideration will be given on the end-to-end project but also look at options and details within the project corridor(s).

Rebecca discussed the three corridor alternatives shown on the figure noted above, orange, green and purple. The Orange Corridor Alternative Option B goes through Tucson, impacting many historic resources. Rebecca introduced the map of *Section 4(F) Properties in the South Section* and accompanying table of I-11 Alternatives within Tucson.

Jay emphasized that engineering has not laid out details at this stage of the work but very generally:

- Alternative 1 largely widens what is there already and impacts many historic districts and neighborhoods.
- Alternative 2 involves elevated express lanes from roughly I-19 north to Prince Road. This minimizes properties being taken but has huge visible impacts.

- Alternative 3 is a collector-distributor design with frontage roads realigned outside of the right-of-way envelope and more formal access control, affecting local business access the most.
- Alternative 4 proposed tunneling below grade, which would be very expensive and possible affect the Santa Cruz River adjacent.

Rebecca asked Mary-Ellen and David how familiar they are with the barrios and districts in Tucson. David said he is very familiar, Mary-Ellen is not so familiar.

Linda introduced two aerial pdf figures of the Tucson area, one showing overview of greater Tucson with the alternatives, and one more detailed of Alternative B with sites (prehistoric and historic). There are also multiple figures showing the Barrio Anita Historic District, the Barrio El Membrillo, and the El Paso and Southwestern Railroad District, both aerial and street views.

David mentioned that archaic sites there are buried very deep, often several meters down. Linda said that this is known and that Tier 2 projects would take it into account.

Rebecca introduced the table Parks, Recreation Areas, and Wildlife/Waterfowl Refuges in Project Corridor, a list of 4(f) properties under consideration. Whichever alternative is chosen will affect some properties, some more than others, though the goal is to find the least harm. Alternative B has the most impacts. SHPO is the official with jurisdiction.

David asked about trying to objectify this analysis and how it is going to be done. Will values be assigned, and where will this classification come from?

Rebecca said they are hoping not to have to do that, and to use a more qualitative approach with no numeric values. There will likely be adverse effects with any alternative but the team is trying to find a way not to rise to a formal Adverse Effect during the Tier 1.

Jay said that even with 8 lanes each way on both I-10 and I-19 more lanes will be needed eventually, maybe 12 lanes by 2040. This will be a continuing process. He noted that many communities are eliminating overhead viaducts now, due partly to vulnerability.

David asked if the railroad was (as he suspected) non-touchable?

Jay said yes.

Aryan said that the UPRR is not adjacent until Speedway Boulevard and up to Picacho, so not a big factor. But if David meant the historic EPSW rail district, it is not an active rail line.

David said he likes the elevated lanes personally, and doesn't want to widen the existing.

Rebecca agreed that there are a lot of resources along there that would be affected.

David returned to the quantification of resources. There are known archaeological sites and historic built structures, as well as the unknowns out in the not-surveyed-but-modelled areas. And people like water, and this project is close to the Santa Cruz River. What kind of categories would be used?

Jay said quantifying would be like comparative analysis: C vs D. There are less obvious resources on D largely because there are larger unsurveyed areas.

David said that there would be archaic sites out there, which are less known anyway. Sometimes projects closer in went right through later materials to get to the less known archaic sites.

Mary-Ellen said we would need a sampling strategy to rule things out.

David said when a system is decided, it should be used on other projects as a model.

Linda noted that these alternatives in the draft EIS are 2000' foot wide alignments, and there will be multiple Tier 2 project later on, involving CEs, EAs, or EISs as appropriate. They will narrow to approximately 400' or less rights-of-way. We may be able to weave and avoid sites as needed. The Class I literature reviews and records search for both historic structures and archaeology will be sent out in consultation soon. The usual sources were accessed as well as input from tribes. The Class I reports will have smaller maps and aggregated tables, with KMZ files on a CD with the details. The KMZ files allow the consulting party to zoom in and study details. For the large area not yet surveyed, modeling looked at results of prior surveys in adjacent areas, historic maps and aerial photos, landforms, hydrology, and geology to assess the potential unrecorded sites.

Mary-Ellen mentioned she has seen a BLM predictability modelling project which could be used for quantification.

Linda said that the team used something similar for modeling, categorizing as low potential, moderate potential, and high potential.

Mary-Ellen said she has no further questions on this and will send Linda the BLM modelling to look at.

Rebecca said that there is no quantification in the Tier 1 study. That will be done in Tier 2.

Jay said that the next phase of work will give another chance to investigate the alternatives.

Rebecca asked if there were any more questions on the methodology

David and Mary-Ellen said this is similar to work done before, but they are concerned about the lack of information on the other two alternatives. Mary-Ellen said there will still be ground-proofing on the modelling results to help avoid as much as possible.

Jay said he has been through three I-10 widening projects and meetings with the barrios down in Tucson. We've already done a lot of work there and have a good foundation. He mentioned it's like death by a thousand cuts, slicing up those barrios little by little.

Mary-Ellen agreed.

Jay said the team is sensitive to the issues.

David said to remember that when the railroad first arrived, it needed a certain location and the community shifted to adjust, and then the freeway arrived and things change again. Traffic is still an issue, and there will always be hostile crowds. We do our best to identify interested parties for consultation, but if they don't step up their voice is not heard. He thinks we need evaluations early for prehistoric and historic period resources.

Mary-Ellen asked what kind of sites are in the areas not already surveyed? Better to get as much info as possible early.

Rebecca said the Draft PA will include strategies for the Tier 2 work.

Jay noted that the PA and the Tier 1 will provide a roadmap. The congestion issues are especially true in Tucson.

Rebecca says the Class I reports will go out soon, at the same time, but separate reports. Look at them and we can meet again

Linda said the PA will be out soon, too.

Mary-Ellen and David had no more to discuss.

The meeting closed at 2 p.m.

Post meeting discussion: It was generally felt that SHPO didn't seem to have any real issues with the methodology. The chance of predictability studies coming up with more 4(f) properties is unlikely. Team has asked tribes about TCPs. The 2000-foot alignments could be moved, per Jay, if absolutely needed. It was noted that David favors the elevated alternative, despite the fact that it would also have an adverse effect and be less prudent. He sees it as less impact.

PRE-SCOPING MEETING WITH MARICOPA COUNTY

APRIL 6, 2016

3:00 PM – 4:00 PM

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION
2901 W. DURANGO STREET
PHOENIX, ARIZONA 95009

* * * AGENDA * * *

1. Introductions and Purpose of Meeting
2. History of I-11 Corridor
3. Overview of Environmental Review Process
 - a. Scoping
 - b. Alternatives Selection Report
 - c. Tier 1 Environmental Impact Statement
4. Discussion of I-11 Corridor within Maricopa County
5. Maricopa County's Related Plans and Projects in Corridor
6. Potential Opportunities and Issues
7. On-Going Communication Protocols and Recommended Techniques
 - a. ADOT and Maricopa County Coordination
 - b. Public Outreach and Involvement
 - c. Identifying Protected Populations (Title VI, Environmental Justice, and Limited English Proficiency [LEP] Communities)
8. Contact Information
 - a. Project E-Mail: I-11ADOTStudy@hdrinc.com
 - b. Toll Free Hotline: 1-844-544-8049 (Bilingual)
 - c. Website: <http://i11study.com/Arizona>
 - d. Mail: Interstate 11 Tier 1 EIS Study Team
c/o ADOT Communications
1655 W. Jackson St., MD 126F
Phoenix, AZ 85007
9. Other Issues or Items
10. Next Steps



Maricopa County

Department of Transportation

Director's Office
2901 W. Durango Street
Phoenix, AZ 85009
Phone: 602-506-4700
Fax: 602-506-4858
www.mcdot.maricopa.gov

July 7, 2016

Aryan Lirange
FHWA Senior Urban Engineer
4000 N. Central Ave., Suite 1500
Phoenix, AZ 85012

Subject:

999-M(161)S
I-11, I-19/SR 189 to US 93/SR 89
TRACS No. 999 SW 0 M5180 01P
I-11 Corridor Tier 1 EIS
Agency Scoping Comments

Dear Mr. Lirange:

Thank you for the opportunity to provide written comments on the I-11 Corridor Tier 1 Environmental Impact Statement. The below are collective comments from the following Departments and Districts within Maricopa County: Air Quality, Flood Control, Parks and Recreation, and Transportation. After attending the Agency Scoping Meeting on June 7, 2016, Maricopa County provides the following general comments on the Corridor Study Area.

1. Near or in close proximity to Vulture Mine Road
 - a. Vulture Mine Road is a regional roadway carrying vehicles from I-10 to Wickenburg. Impact to this roadway may cause concern to local traffic.
 - b. The Corridor Study Area includes the Vulture Mountain Recreation Area (VMRA) Master Plan area. Concerns related to this Master Plan include:
 - i. Conflict with existing and planned Off Highway Vehicle recreation area
 - ii. Conflict with proposed Campground
 - iii. Conflict with Day Use area
 - iv. Conflict with Trails System
 - v. Potential limits to east/west cross recreational opportunities
 - vi. Potential restricted access to the area
 - c. Coordination with the approved circulation plans of multiple master planned communities.
 - d. Topography in this area is diverse and may require special considerations.
 - e. Wildlife activity is high in this area resulting in concerns with wildlife connectivity.

2. US 60 and future Turner Parkway area
 - a. Potential wildlife impact to the Hassayampa Preserve
 - b. Increase of traffic on US 60 and impact to the Hassayampa Preserve
 - c. Potential impact to existing communities (e.g. Festival Ranch)
 - d. Potential impact to wildlife corridors traversing to and from the White Tank Mountains
3. Impact to Flood Retarding Structures (FRS) and Dams
 - a. Buckeye FRS #1 is an earthen embankment dam approximately 7 miles long and is located immediately north of and parallel to Interstate 10 south of the White Tank Mountains and east of the Hassayampa River. The purpose of the dam is to provide 100 yr. flood protection to Interstate 10 and the lower portions of the Buckeye watershed area. The dam was designed to detain water only during times of flooding. Storm water is released from the dam through an ungated Principal Spillway which outlets into the Hassayampa River. Buckeye FRS 1 is one of three dams that impound and drain storm water from a 90-square mile watershed. Buckeye FRS 2 & 3 is east of this dam and are collectively part of an overall system.
 - b. Sunset FRS is an earthen embankment dam approximately 488-ft long and is located in the Town of Wickenburg south of the intersection of U.S. 60 and east of Mariposa Dr. The drainage area contributing to the dam is approximately 0.6 square miles. The dam is designed to contain the 100-yr flood and outlets into the Sunset/Sunnycove pipeline and outfall into the Hassayampa River, approximately 1.5 miles away.
 - c. Sunnycove FRS is an earthen embankment dam approximately 714-ft long and is located in the Town of Wickenburg south of the U.S. 60 and west of Kellis Rd. The drainage area contributing to the dam is approximately 1.4 square miles. The dam is designed to contain the 100-yr. flood and outlets into the Sunset/Sunnycove pipeline and outfall into the Hassayampa River, approximately 1.5 miles away.
 - d. Casandro Wash Dam is an earthen embankment dam approximately 1,011 feet long and is located in the Town of Wickenburg immediately north of U.S. 60 and 1500-ft west of Mariposa Dr. The drainage area contributing to the dam is approximately 3.0 square miles. The dam is designed to contain the 100-yr flood and outlets into the Casandro Wash pipeline and outfall into Sols Wash approximately 1 mile downstream near Tegner St.

*****Note: Each of these dams are under an Operating Agreement with State and Federal Regulatory agencies and any impacts to these dams will require involvement with the AZ Dept. of Water Resources Dam Safety Section and the Natural Resource Conservation Service.*

4. Impact to Loop 303 Outfall Drainage Channel

The L 303 Channel is a 5-mile long regional drainage channel located in the City of Goodyear west of Cotton Lane from Van Buren St. to the Gila River. The upstream 3.7 miles of the channel is within the corridor of the L 303 freeway. This project provides a regional drainage outfall as well as a 100-yr. level of flood protection for the freeway and is an outfall for two dams west of located west of the channel. Connections or impacts to the system will involve the Flood Control District and ADOT.

5. Floodplain Impacts

The Flood Control District performs floodplain management and regulations duties for unincorporated Maricopa County and the following Cities/Towns that appear to be within the corridor: Buckeye, Surprise, Goodyear, Gila Bend and Wickenburg.

6. The Maricopa Regional trail will connect Lake Pleasant Regional Park to the Vulture Mountains and Wickenburg area from the east. The planned Regional Trail would then likely exit the Vulture Mountains area and head southwest to connect with White Tank Mountain Regional Park. Consideration should be made to accommodate connectivity to those areas.


7. Potential impacts on air quality will need to be considered.

In addition, please add Michael Duncan with Flood Control District to your distribution list. He can be reached at 602-506-4732 or via email at mwd@mail.maricopa.gov.

Maricopa County appreciates the opportunity to provide comments on the Corridor Study Area and looks forward to working with the Federal Highway Administration and the Arizona Department of Transportation as Corridor Alternatives are developed.

Please feel free to contact me if there is clarification needed on any of the comments provided.

Sincerely,



Jennifer Toth
County Engineer

Cc:

RJ Cardin, Parks and Recreation

Bill Wiley, Flood Control District

Phil McNeely, Air Quality

Jay Van Echo, ADOT Project Manager

Lisa Ives, AECOM Consultant Team Project Manager

MEETING PURPOSE: Agency Coordination Meeting #4 – Avondale

DATE & TIME: Tuesday, May 16, 2017 10:00 AM

LOCATION: Estrella Mountain Community College
3000 N. Dysart Rd., Avondale, AZ

ATTENDEES: List of attendees provided in the attached sign-in sheets

MEETING NOTES

Purpose:	
The purpose of the Agency Coordination meeting was to meet with federal, state, regional, local, and tribal agencies/organizations that are Cooperating or Participating Agencies in the environmental review process for the I-11 Corridor Tier 1 EIS. The attendees were provided an overview of the alternatives selection process via PowerPoint and invited to submit comments or questions on the study.	
Key Discussion Points / Comments:	Commenter
1. Maricopa County now owns land within the Vulture Mountain Recreation Area. The County is glad to see the northern portion of alternative option V removed from further evaluation. [Response: The technical team has noted.]	Lauren Bromley, Maricopa County Parks and Recreation
2. The EIS for the Santa Cruz River Floodplain Study is underway, with a DEIS anticipated in 2019. The US Army Corps of Engineers study team is interested in GIS shapefiles of the alternatives. [Response: Once the Alternatives Selection phase is complete, GIS data will be shared with Cooperating and Participating Agencies.]	Jesse Rice, US Army Corps of Engineers
3. The Air Quality Department is most interested in options “M” and “K” that provide a bypass around metropolitan Phoenix, alleviating congestion through the center of the city and reducing air quality concerns. [Response: The technical team has noted.]	Richard Sumner, Maricopa County Air Quality
4. The Flood Control District manages several pieces of infrastructure east of the Hassayampa River, including an 8-mile dam north of I-10 that would conflict with alternative option W. [Response: The technical team has noted.]	Michael Duncan, Flood Control District of Maricopa County
5. Noted that the Flood Control District is also studying a levy on the north side of the Gila River (south of option “R”): El Rio Levy. The Sonoran Parkway EIS is expected to be final this year. This corridor generally overlays with alternative option “M”. Goodyear annexed Mobile	Ed Kender, BLM

Purpose:

The purpose of the Agency Coordination meeting was to meet with federal, state, regional, local, and tribal agencies/organizations that are Cooperating or Participating Agencies in the environmental review process for the I-11 Corridor Tier 1 EIS. The attendees were provided an overview of the alternatives selection process via PowerPoint and invited to submit comments or questions on the study.

Key Discussion Points / Comments:	Commenter
<p>and needs to provide services to the area. The City sees a need for both the parkway facility (local access) and I-11 (high capacity, longer distance travel). This document discusses wildlife crossings between Maricopa and Estrella Mountains related to options "M" and "L".</p> <p>[Response: The technical team has noted.]</p> <p>Technical team asked Mr. Kender if an RMP amendment would be needed if I-11 traverses BLM land in the central section. He indicated that an amendment may be needed, but would occur during Tier 2 activities.</p>	
<p>6. Follow up with the City of Goodyear on the Sonoran Parkway and relationship to I-11.</p> <p>[Response: Technical team has noted.]</p>	<p>Bill Olsen, Newland Communities</p>

c Document Control

Attachments: Meeting Sign-in Sheets

Meeting Purpose: Agency Coordination Meeting

Location: Estrella Mtn Community College, 3000 N. Dysart Rd., Avondale, AZ

Date: Tuesday, May 16, 2017 Time: 10:00 AM

SIGN-IN SHEET

Name	Organization	Phone	E-mail	Address
Jesse Rile	USACE	602-230-6854	jesse.m.rile@usace.army.mil	3634 N. Central Ave Ste 900 Phoenix 85012
Hether Krause	MCAQD	602-5066731	hkr@ma1.maricopa.gov	1001 N Central Ave Phoenix 85004
Carlos Lopez	ADOT	602-712-4786	clopez@azdot.gov	
Jay Van Ede	ADOT	520-400-6007	juanecho@azdot.gov	
ED KENDER	BLM	623-580-5616	ekender@blm.gov	21605 N 7th Ave PHOENIX AZ 85027
Joanie Cady	ADOT	602-712-8633	jcady@azdot.gov	11011 W. Jackson, PHX
Kimberly Bodington	AECOM			
Jen Ryne	AECOM			
Karen Apple	HDR			
Jackie Kuechenmeister	CH2M			
Dan Anderson	CH2M			
Anjan Livange	FHWA			

Meeting Purpose: Agency Coordination Meeting

Location: Estrella Mtn Community College, 3000 N. Dysart Rd., Avondale, AZ

Date: Tuesday, May 16, 2017 **Time:** 10:00 AM

SIGN-IN SHEET

Name	Organization	Phone	E-mail	Address
Richard Sumner	Maricopa County Air Quality Dept.	602.506.1842	sumner.r@mail.maricopa.gov	1001 N. Central Ave. Phx AZ 85004
Michael Duncan	FLOOD CONTROL DISTRICT OF MAR. CO.	602-506-4732	mwd@mail.maricopa.gov	2801 W DURANGO ST., PHX, AZ 85009
William Olson	Newland - Estrella	602 618 9700	wolson@newlandco.com	5090 N. 40 ST. Phx 85016
Lauren Bromley	MC Parks		Laurenbromley@mail.maricopa.gov	



May 31, 2017

Mr. Jay Van Echo
I-11 Project Manager
Arizona Department of Transportation
1655 W. Jackson Street MD 126F
Phoenix, AZ 85007

Dear Mr. Van Echo:

Thank you for the opportunity to provide comment on Interstate 11 Corridor Tier 1 Environmental Impact Statement.

Pinal County prefers the alignment of the proposed corridor as reflected on both the Pinal Regionally Significant Routes and the Pinal Regional Transportation Authority Plans. Additionally, we support, the proposed route of the Sif Oidak District Administration and Planning & Economic Development Departments of the Tohono O'odham Community; as proposed and supported in Resolution No. SODC16-145 on November 17, 2016.

The Pinal County Board of Supervisors approved the Pinal County Open Space and Trails Master Plan (OSTMP) in October 2007. An updated Plan map is attached to this letter, and the entire document can be viewed here, <http://pinalcountyyaz.gov/OpenSpaceTrails/Pages/KeyDocuments.aspx>

It is suggested that the OSTMP be included in the review and assessment of the I-11 routes. This review should include, but not be limited to, the following elements of the OSTMP:

- **Palo Verde Regional Park (Regional Park #4)**-Pinal County recently completed a Regional Park Cooperative Recreation Management Area Master Plan. (That document can be viewed here <http://pinalcountyyaz.gov/OpenSpaceTrails/Pages/KeyDocuments.aspx>.) Palo Verde Regional Park will be a 23,200 acre multi-use park located along the western edge of Pinal County.
- The proposed **Anza National Historic Trail Corridor** through Pinal County. This multi-use historic trail is administered by the National Park Service. More than 40-miles of proposed trail run through Pinal County, acting as a vital link between Pima and Maricopa counties.
- Several segments of **planned regional trail** and **open space corridors** in the vicinity to potential corridor alignments.

Sincerely,

Kent A. Taylor, Director
Pinal County
Open Space and Trails Department

OPEN SPACE AND TRAILS



SECTION 106

Consulting Parties Acceptance Form

Interstate 11 Corridor Tier 1 Environmental Impact Statement
Nogales to Wickenburg, Arizona

Yes, I Jonathan Mabry, wish to be a consulting party under Section 106 of the National Historic Preservation Act for the Interstate 11 (I-11) Corridor Tier 1 Environmental Impact Statement (EIS). My demonstrated interest in historic properties as associated with the I-11 Corridor is described as follows:

Historic properties, including archaeological sites and TCPs, within the project APE within the City of Tucson and city-owned lands outside of the city limits.

Or;

No, I _____, do not wish to be a consulting party under Section 106 of the National Historic Preservation Act for the I-11 Corridor Tier 1 EIS.

Date: 8-19-16

Name of
Organization:

City of Tucson Historic Preservation Office

Address:

201 N. Stone Ave., 3rd Floor P.O. Box 27210
Tucson, AZ 85726-7210

Email Address:

jonathan.mabry@tucsonaz.gov

Phone Number:

(520) 837-6968

Please return to:

Rebecca Yedlin
Environmental Coordinator
Federal Highway Administration
4000 N. Central Ave., Suite 1500
Phoenix, Arizona 85012
(602) 382-8979
rebecca.yedlin@dot.gov

or

Lauren Clementino, MHP
Historic Preservation Specialist
ADOT Environmental Planning
1801 South Milton Road, MD F500
Flagstaff, Arizona 86004
(928) 637-0580
lclementino@azdot.gov



U.S. Department
of Transportation
Federal Highway
Administration

ARIZONA DIVISION

4000 North Central Avenue
Suite 1500
Phoenix, Arizona 85012-3500
Phone: (602) 379-3646
Fax: (602) 382-8998
<http://www.fhwa.dot.gov/azdiv/index.htm>

SHPO - 2014 - 0246(145935)
ARIZONA STATE HISTORIC PRESERVATION OFFICE

November 21, 2018

RECEIVED

NOV 21 2018

ARIZONA STATE HISTORIC
PRESERVATION OFFICE

In Reply Refer To:

999-M(161)
TRACS No. 999 SW 0 M5180 01P
I-11, I-19/SR 189 to US 93/SR 89
I-11 Corridor Tier 1 EIS

Section 106 and Section 4(f) Continuing Consultation:
Potential Impacts to Properties within the metro-Tucson Area

Ms. Erin Davis, Compliance Specialist
State Historic Preservation Office, Arizona State Parks
1100 West Washington Street
Phoenix, Arizona 85007

Dear Ms. Davis:

The Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) are preparing a Tier 1 Environmental Impact Statement (Tier 1 EIS) for the Interstate 11 (I-11) Corridor between Nogales and Wickenburg, Arizona. The I-11 Corridor study area includes portions of the Santa Cruz, Pima, Pinal, Maricopa, and Yavapai counties. The FHWA is the Federal Lead Agency and ADOT is the Local Project Sponsor for the Tier 1 EIS. To make the project eligible for federal funds, the project is being assessed as an undertaking and will be subject to review pursuant to Section 106 of the National Historic Preservation Act. Land ownership of the project area has yet to be determined since corridor alternatives are still under development.

FHWA and ADOT met with the State Historic Preservation Office (SHPO) on Wednesday, November 7, 2018 to discuss the potential impacts to and FHWA's recommendations regarding the adverse effects to historic properties afforded Section 4(f) protection within the proposed Build Corridor Alternatives in the southern section encompassing the metro-Tucson area of which SHPO is the official with jurisdiction. Meeting notes are enclosed for your review and comment. Additionally, a table containing information on the historic properties within the three proposed build corridor alternatives discussed at the meeting is enclosed.

Five historic properties within the proposed Orange Build Corridor Alternative, Option B along Interstate 19 (I-19) and I-10 through the metro Tucson area would potentially be adversely affected and may result in a Section 4(f) use. Three historic properties within the Orange Build Corridor Alternative, Option B would be grade separated, thus no adverse effects/Section 4(f) use. Six historic properties within the Orange Build Corridor Alternative, Option B would be accommodated through a commitment to avoid the properties during the tier 2 projects. Thus, there would be no adverse effects/Section 4(f) use. One historic property would be grade separated and also accommodated through a commitment to avoid the property during the tier 2 projects, thus no adverse effects/Section 4(f) use. Two historic properties are located outside the 2,000 foot wide build corridor alternative, thus they would not be adversely affected and there

would be no Section 4(f) use. SHPO agreed with these recommendations and commitments at the meeting.

One historic property is located within the proposed Green Build Corridor Alternative, Option D that is co-located with Interstate 19 (I-19) to a point near El Toro Road in Sahuarita where it diverts to the west to Sandario Road and continues north. This property would be accommodated through a commitment to avoid the property during the tier 2 projects. SHPO agreed with this commitment at the meeting.

The Purple Build Corridor Alternative, Option C is co-located with I-19 to Elephant Head Road, then diverts to the west to Sandario Road and continues north. No historic properties afforded protection under Section 4(f) are located within the Purple Build Corridor Alternative, Option C.

The Green Build Corridor Alternative, Option D and the Purple Build Corridor Alternative, Option C would adversely impact the Tucson Mitigation Corridor (TMC), a wildlife refuge that is afforded protection under Section 4(f). Coordination is ongoing between FHWA, ADOT, and the official with jurisdiction, the Bureau of Reclamation, in an effort to achieve a net benefit finding for the TMC as part of a Preliminary Nationwide Programmatic Section 4(f) Evaluation. Proposed mitigation measures would protect and enhance wildlife connectivity and movements across the proposed Green Build Corridor Alternative, Option D and the Purple Build Corridor Alternative where they cross the TMC.

Widening of Interstate 10 (I-10) from 8 lanes to 12 lanes through downtown Tucson (Orange Build Corridor Alternative, Option B) would result in adverse effects (direct and/or indirect) to historic buildings and districts. Because these adverse effects cannot be mitigated, the following design options and recommendations to avoid these adverse effects were discussed at the meeting.

The evaluated design avoidance alternatives for Orange Build Corridor Alternative, Option B include alignment shifts, tunneling, and elevated lanes. There was not an alignment shift that would avoid historic buildings and districts because any shift to avoid a resource would result in additional direct impacts to one or more other historic buildings and districts. Surface structures (vents, emergency access, etc.) associated with tunneling portions of I-10 through downtown Tucson would potentially result in adverse effects to historic buildings and districts and therefore be a Section 4(f) use. These surface structures would also adversely affect subsurface archaeological resources. Although it is recognized that cost is not the foremost factor, the tunneling option would not be prudent due to cost. While elevated lanes along I-10 through downtown Tucson would likely avoid direct impacts, they would create a third level of roadway at a minimum of seven interchange locations resulting in potential adverse indirect visual and noise impacts to historic buildings and districts, and therefore be a Section 4(f) use. While it is recognized that cost is not the foremost factor, the elevated lanes would not be prudent due to cost.

Please review and comment on the enclosed meeting notes, table, and the information provided in this letter. If you have any comments or changes, please respond in writing and return to Rebecca Yedlin at the address in the letterhead or email Rebecca.Yedlin@dot.gov. If you concur

with the recommendations and commitments made at the November 7, 2018 meeting and in this letter, please indicate your concurrence by signing below and return to Rebecca Yedlin. If you have any questions or concerns, please feel free to contact Linda Davis at (602) 712-8636 or email ldavis2@azdot.gov.

Sincerely,



Karla S. Petty
Division Administrator



Signature for SHPO Concurrence
999-M(161)



Date

Enclosures

ecc:
RYedlin
LDavis

NOV 28 2018

FHWA, ADOT AND SHPO I-11 COORDINATION MEETING

**WEDNESDAY, NOVEMBER 7, 2018
8:00 AM**

**ADOT ENVIRONMENTAL PLANNING OFFICE
1611 W JACKSON STREET
PHOENIX, AZ 85007**

*** * * MEETING NOTES * * ***

Introductions

Aryan Lirange, FHWA
Rebecca Yedlin, FHWA
Jay Van Echo, ADOT
Katie Rodriguez, ADOT
Linda Davis, ADOT
Erin Davis, SHPO

General I-11 Tier 1 EIS and Section 106 Status Update

Jay provided a general overview and status update of the I-11 Tier 1 EIS project and the process that has been followed for the Tier 1 Draft EIS.

Linda provided an update of the Section 106 process and tasks that have been completed and are in process, including the Programmatic Agreement, Class I, and ongoing coordination with Tribes.

Discussion of I-11 Impacts through South Section

Rebecca and Jay discussed the alternatives analysis and the alternatives being evaluated in the DEIS. Jay explained each of the alternatives and attributes by section (South, Central, North) and the evaluation of impacts that have occurred within the 2,000 foot corridor .

Rebecca communicated that the focus of the meeting was to discuss the potential Section 4(f) impacts in the South Section of project with SHPO and agree to potential impact determinations. Rebecca also discussed the various types of Section 4(f) impacts that are discussed in the DEIS, including the language regarding "accommodation in corridor." The language was discussed and it was agreed the language for accommodation in the corridor was appropriate for the Tier 1 level of effort.

Tables and maps were provided to all meeting attendees to aid in the discussion of the Section 4(f) properties within the Southern section build corridor alternatives. FHWA preliminary determinations regarding accommodations or avoidance of Section 4(f) properties were discussed, and that direct impacts to Section 4(f) properties along I-19 are a low risk. SHPO agreed that direct impacts are a low risk for the Section 4(f) properties along I-19, and that Tier 2 projects would address any potential indirect and/or visual effects, with consideration to the fact that I-19 and existing development is already in place through these areas.

The discussion continued into the potential effects of Section 4(f) properties within the I-10 downtown Tucson area. Aryan discussed the potential design options through downtown Tucson, which includes tunneling, elevated structures, and widening. Rebecca and Linda discussed the various Section 4(f) properties and districts that were identified through the Downtown Tucson area and the potential direct and indirect impacts to each property and district. SHPO agreed that the potential effects from the indirect, direct, and cumulative impacts could be substantial with any of the potential design options discussed. SHPO also stated that the design options do not provide any opportunities for avoidance or minimization due to the location and the built environment, and would likely result in Section 106 adverse effects.

Linda discussed the previous comments provided by the City of Tucson and SHPO, as well as the need for future discussions following the Notice of Availability (NOA) for the I-11 DEIS in early 2019. Rebecca and Linda also stated that FHWA would send a formal letter to SHPO regarding the discussion of Section 4(f) impacts and the assessment for SHPO concurrence.

Rebecca mentioned the desire for additional coordination with the historic districts in Downtown Tucson, and asked if SHPO had any contacts for the various communities, since ADOT and FHWA would like to receive comments from them for the project as well.

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Southern Pacific Railroad (now Union Pacific), including Phoenix Main Line (AZ A:2:40(ASM))	Historic railroad corridor (1865-1988)	Crosses Purple, Green, and Orange Corridor Alternatives	SHPO	Some segments determined NRHP-eligible, Criterion A for association with the expansion of rail travel.	No use - grade-separate	Not applicable
Arizona Southern Railroad – railroad grade AZ AA:10:19(ASM)	Historic railroad corridor (1904-1933)	Crosses Purple, Green, and Orange Corridor Alternatives	SHPO	Some segments determined NRHP-eligible, Criterion A for association with the movement of mined materials.	No use - grade-separate	Not applicable
Canoa Ranch Rural Historic District (Hacienda de la Canoa, Raul M. Grijalva Canoa Ranch Conservation Park)	Historic site (1912-1951) and recreation area	Partially in Orange and Green Corridor Alternatives	SHPO	Listed in 2016, Criterion A for association with cattle ranching in AZ and C for cluster of features associated with the headquarters of an early ranching and agriculture operation.	No use – accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Tumacacori National Monument and Museum (National Historical Park)	Historic site (three 17th and 18th Century missions and museum complex)	Partially in Purple, Green, and Orange Corridor Alternatives	NPS, SHPO	NHL-listed in 1987, Criterion A for association with Spanish Colonial Jesuit mission period (17th and 18th Centuries) and Criterion C for Mission and Spanish Colonial architecture.	No use – accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable
Agustin del Tucson Mission site, AZ BB:13:6(ASM)	Homestead	Partially in Orange Corridor Alternative	SHPO	NRHP-eligible, Criterion A for significance as mission settlement.	No use – accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Barrio El Hoyo Historic District	Historic neighborhood (1908-1950)	Partially in Orange Corridor Alternative	SHPO	-listed in 2008, Criterion A as an early, garden neighborhood along the Santa Cruz River, Criterion C for its collection of residential structures built in 1908-1950 in the Sonoran style.	Potential use	<p>An alignment shift moving the roadway alignment away from the Historic District would result in the use of one or more Section 4(f) Properties. Thus, alignment shift is not considered an avoidance alternative.</p> <p>Tunneling was considered as a means to avoid the Historic District. Found it is not an avoidance alternative due to construction of tunnel vents and access facilities, and potential disturbance from staging areas. Cost of 6 miles of tunnel would add \$5.1 billion to the projected overall capital costs.</p> <p>Elevated lanes (bridges) were considered to avoid impacts to the Historic District. The elevated lanes would go over existing interchanges, creating a third level at a minimum of seven locations. Elevated lanes would avoid direct impacts, but would likely result in indirect adverse visual and noise impacts. Cost of elevated lanes would add \$1 billion to the overall capital costs.</p>

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Barrio El Membrillo Historic District	Historic neighborhood (1920's)	In Orange Corridor Alternative	SHPO	NRHP-listed in 2009, Criterion A as an historic Hispanic neighborhood along the Santa Cruz River, Criterion C for its collection of residential structures built in the 1920s in the Sonoran style.	Potential use	<p>An alignment shift moving the roadway alignment away from the Historic District would result in the use of one or more Section 4(f) Properties. Thus, alignment shift is not considered an avoidance alternative.</p> <p>Tunneling was considered as a means to avoid the Historic District. Found it is not an avoidance alternative due to construction of tunnel vents and access facilities, and potential disturbance from staging areas. Cost of 6 miles of tunnel would add \$5.1 billion to the projected overall capital costs.</p> <p>Elevated lanes (bridges) were considered to avoid impacts to the Historic District. The elevated lanes would go over existing interchanges, creating a third level at a minimum of seven locations. Elevated lanes would avoid direct impacts, but would likely result in indirect adverse visual and noise impacts. Cost of elevated lanes would add \$1 billion to the overall capital costs.</p>
El Paso & Southwestern Railroad District	Historic building (1913) and associated structures and features	In Orange Corridor Alternative	SHPO	Depot building was NRHP-listed in 2004, Criterion A for its association with railroad transportation and mining in AZ and C for its Classical Revival style. District determined NRHP-eligible under Criterion A for railroad association.	No use – accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Menlo Park Historic District	Historic neighborhood (1877-1964)	Partially in Orange Corridor Alternative	SHPO	NRHP-listed in 2010, Criterion A as an Anglo-European/American neighborhood, Criterion C for its mix of Spanish Colonial Revival, Craftsman bungalow, prairie, post-World War II ranch, and Mid-Century Modern architectural styles.	Potential use	<p>An alignment shift moving the roadway alignment away from the Historic District would result in the use of one or more Section 4(f) Properties. Thus, alignment shift is not considered an avoidance alternative.</p> <p>Tunneling was considered as a means to avoid the Historic District. Found it is not an avoidance alternative due to construction of tunnel vents and access facilities, and potential disturbance from staging areas. Cost of 6 miles of tunnel would add an estimated \$5.1 billion to the projected overall capital costs.</p> <p>Elevated lanes (bridges) were considered to avoid impacts to the Historic District. The elevated lanes would go over existing interchanges, creating a third level at a minimum of seven locations. Elevated lanes would avoid direct impacts, but would likely result in indirect adverse visual and noise impacts. Cost of elevated lanes would add \$1 billion to the overall capital costs.</p>

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Levi H. Manning House	Historic site (1908)	In Orange Corridor Alternative	SHPO	NRHP-listed in 1979, Criterion C for its combination of southwestern styles and association with former Tucson Mayor Levi Manning and architect Henry Trost.	Potential use	<p>An alignment shift moving the roadway alignment away from the Historic District would result in the use of one or more Section 4(f) Properties. Thus, alignment shift is not considered an avoidance alternative.</p> <p>Tunneling was considered as a means to avoid the Historic District. Found it is not an avoidance alternative due to construction of tunnel vents and access facilities, and potential disturbance from staging areas. Cost of 6 miles of tunnel would add \$5.1 billion to the projected overall capital costs.</p> <p>Elevated lanes (bridges) were considered to avoid impacts to the Historic District. The elevated lanes would go over existing interchanges, creating a third level at a minimum of seven locations. Elevated lanes would avoid direct impacts, but would likely result in indirect adverse visual and noise impacts. Cost of elevated lanes would add \$1 billion to the overall capital costs.</p>
Barrio El Presidio	Historic neighborhood (1860-1920)	Partially in Orange Corridor Alternative	SHPO	NRHP-listed in 1976, Criterion A as originally an 18th Century Spanish village, subsequent Mexican village, Criterion C for architecture in Sonoran, Transitional, American Territorial, Mission Revival, and Craftsman Bungalow styles.	No use – accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Barrio Anita Historic District	Historic neighborhood (1903)	Partially in Orange Corridor Alternative	SHPO	NRHP-listed in 2011, Criterion A began as a Hispanic barrio in 1920, named after Annie Hughes, sister of Sam Hughes, Criterion C for architecture in Sonoran, Territorial and Queen Anne styles.	Potential use	<p>An alignment shift moving the roadway alignment away from the Historic District would result in the use of one or more Section 4(f) Properties. Thus, alignment shift is not considered an avoidance alternative.</p> <p>Tunneling was considered as a means to avoid the Historic District. Found it is not an avoidance alternative due to construction of tunnel vents and access facilities, and potential disturbance from staging areas. Cost of 6 miles of tunnel would add \$5.1 billion to the projected overall capital costs.</p> <p>Elevated lanes (bridges) were considered to avoid impacts to the Historic District. The elevated lanes would go over existing interchanges, creating a third level at a minimum of seven locations. Elevated lanes would avoid direct impacts, but would likely result in indirect adverse visual and noise impacts. Cost of elevated lanes would add \$1 billion to the overall capital costs.</p>
Ronstadt-Sims Warehouse	Historic site (1920)	Outside/adjacent to Orange Corridor Alternative	SHPO	NRHP-listed in 1989, Criterion A for agricultural association, Criterion C post-railroad Sonoran style and engineering technology; non-contiguous contributor to John Spring Neighborhood District and John Spring Multiple Resource Area.	No use	Not applicable

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
US Department of Agriculture Plant Materials Center	Historic site (1934)	Partially in Orange Corridor Alternative	SHPO	NRHP-listed in 1997, Criterion A for its operation as a producer of nursery stock and seeds for regional soil stabilization and conservation projects.	No use – accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable
Cortaro Farms Canal/Cortaro-Marana Irrigation District Canal	Historic water conduit (1920)	Crosses Purple and partially in Orange Corridor Alternative	SHPO	NRHP-eligible, Criterion A for its significant contribution to the expansion of irrigated agriculture in the region.	No use - grade-separate	Not applicable
Julian Wash Archaeological Park	Sculpture garden within the Julian Wash Archaeological site and site of the former St. Luke's Orphanage	Large portion in Orange Corridor Alternative	City of Tucson SHPO		No use – grade separated and accommodate through a commitment to avoid the property during the tier 2 projects	Not applicable

Property Name	Classification	Build Corridor Alternative	Official(s) with Jurisdiction	NRHP Eligibility	Use Finding	Avoidance Options Considered
Tumamoc Preserve	Nature preserve and National Historical Landmark	Within Study Area; approximately 3,800 ft. west of Orange Corridor Alternative	University of Arizona		No use	Not applicable



December 19, 2018

In Reply Refer To:



999-M(161)
TRACS No. 999 SW 0 M5180 01P
I-11, I-19/SR 189 to US 93/SR 89
I-11 Corridor Tier 1 EIS

Section 106 and Section 4(f) Continuing Consultation:
Revised Potential Impacts to Properties within the metro-Tucson Area

Ms. Erin Davis, Compliance Specialist
State Historic Preservation Office, Arizona State Parks
1100 West Washington Street
Phoenix, Arizona 85007

Dear Ms. Davis:

On November 21, 2018 the Federal Highway Administration (FHWA) consulted with the State Historic Preservation Office (SHPO) regarding the potential impacts to and FHWA's recommendations regarding the adverse effects to historic properties afforded Section 4(f) protection within the proposed Build Corridor Alternatives in the southern section encompassing the metro-Tucson area of which SHPO is the official with jurisdiction (Petty [FHWA] to Davis [SHPO] SHPO concurrence November 23, 2018).

Since the November 21st meeting, the project team refined the footprint of the proposed Orange Build Corridor Alternative, Option B along Interstate 10 (I-10) through the metro Tucson area in an effort to make a more definitive determination of potential impacts. As a result of this analysis, impacts to some historic properties have changed. A revised table containing information on the historic properties included in the original consultation with the changes highlighted in yellow and a figure are included to assist you in your review.

The refinement resulted in changes to the potential impacts to three historic properties within the proposed Orange Build Corridor Alternative, Option B along I-10 through the metro Tucson area:

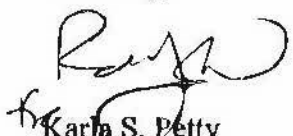
- The Barrio El Hoyo Historic District and the Menlo Park Historic District are now located on the outer fringes of the footprint and would be avoided through accommodation. Thus there now would be no adverse effects or Section 4(f) use.
- The boundary of the El Paso and Southwestern Railroad District was revised. The original boundary included only the National Register of Historic Properties (NRHP) listed railroad station because the original Section 4(f) methodology included only NRHP listed properties. A NRHP nomination has been drafted for a larger El Paso and Southwestern Railroad District that is considered eligible. Because nomination of the district is in process and the City of Tucson includes the District on their website as a pending NRHP District, the decision was made to include the eligible District in the analysis. A roundhouse and areas of the abandoned railroad corridor that are contributing


properties to the El Paso and Southwestern Railroad District would potentially be adversely affected and may result in a Section 4(f) use.

The refinement of the footprint was only analyzed within the Orange Build Corridor Alternative, Option B along I-10. There are no changes to potential impact to historic properties or FHWA's recommendations along the Purple Build Corridor Alternative, Option C or the Green Build Corridor Alternative, Option D

Please review the enclosed table, figure, and the information provided in this letter. If you have any comments, please respond in writing and return to Rebecca Yedlin at the address in the letterhead or email Rebecca.Yedlin@dot.gov. If you concur with FHWA's recommendations, please indicate your concurrence by signing below and return to Rebecca Yedlin. If you have any questions or concerns, please feel free to contact Linda Davis at (602) 712-8636 or email ldavis2@azdot.gov.

Sincerely,


Karla S. Petty
Division Administrator


Signature for SHPO Concurrence
999-M(161)

12/19/18
Date

Enclosures

ecc:
RYedlin
LDavis