



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

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Errata to the I-11 Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation

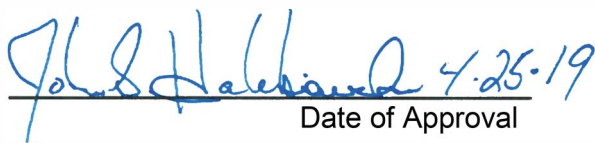
On April 5, 2019, FHWA published a notice of availability for its Draft Environmental Impact Statement and Preliminary Section 4(f) Evaluation (Draft Tier 1 EIS) for the Interstate 11 Corridor between Nogales and Wickenburg, AZ (I-11) project (84 FR 13662). On April 17, 2019, the Arizona Department of Transportation (ADOT) notified FHWA that a section of the Draft Tier 1 EIS was not included in the document. Based on this, FHWA, in conjunction with ADOT, has prepared an Errata to the Draft Tier 1 EIS and will provide an extension to the review and comment period to July 8, 2019. The extended comment period provides additional time to review the Draft Tier 1 EIS and Errata.

As part of the process of preparing and distributing the Draft Tier 1 EIS, the project team identified a section of the analysis that was not included in the document, namely, the "Least Overall Harm" element of **Chapter 4** and supplementary attachments referenced in a table of comments in **Appendix H**, Stakeholder Input.

FHWA and ADOT are extending the public review and comment period to July 8, 2019. The extended comment period provides additional time to review the Draft Tier 1 EIS and the Errata which corrects and clarifies omissions in the Draft Tier 1 EIS, replacing **Chapter 4** in its entirety and including additional attachments for **Appendix H**.

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Karla S. Petty, Division Administrator
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 4-25-19
Date of Approval



 4-25-19
Date of Approval





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Errata to Chapter 4, Draft Preliminary Section 4(f) Evaluation



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4 DRAFT PRELIMINARY SECTION 4(F) EVALUATION

4.1 Introduction

This chapter presents a Draft Preliminary Section 4(f) Evaluation. The Draft Preliminary Section 4(f) Evaluation was prepared to comply with Section 4(f) of the United States (US) Department of Transportation Act of 1966 (49 United States Code [USC] 303), hereinafter referred to as “Section 4(f),” and its implementing regulations codified at 23 Code of Federal Regulations (CFR) Part 774. Additional guidance was obtained from the revised Federal Highway Administration (FHWA) Section 4(f) Policy Paper (FHWA 2012). As allowed by 23 CFR 774.7(e)(1), a Draft Preliminary Section 4(f) Evaluation was determined to be the appropriate level of evaluation in light of the tiered Environmental Impact Statement (EIS) approach.

The Draft Preliminary Section 4(f) Evaluation identifies properties that are afforded protection by Section 4(f) (Section 4.3) and evaluates the potential use of these properties by the Build Corridor Alternatives (Sections 4.4 and 4.5). **Figure 4-1** (Purple Alternative), **Figure 4-2** (Green Alternative), and **Figure 4-3** (Orange Alternative) show the Build Corridor Alternatives, which are further described in **Chapter 2** (Alternatives Considered). FHWA’s Final Tier 1 EIS will examine the Preferred Alternative, and a Preliminary Section 4(f) Evaluation will be part of the Final Tier 1 EIS document. FHWA will make its Final Preliminary Section 4(f) determination as part of the Record of Decision (ROD) for the Tier 1 process. The public comment period for the Draft Preliminary Section 4(f) Evaluation is equal in duration to and concurrent with the comment period for the Draft Tier 1 EIS. FHWA and Arizona Department of Transportation (ADOT) will use the information presented in this Draft Preliminary Section 4(f) Evaluation, along with the findings of the Draft Tier 1 EIS process, to identify and select a Preferred Alternative.

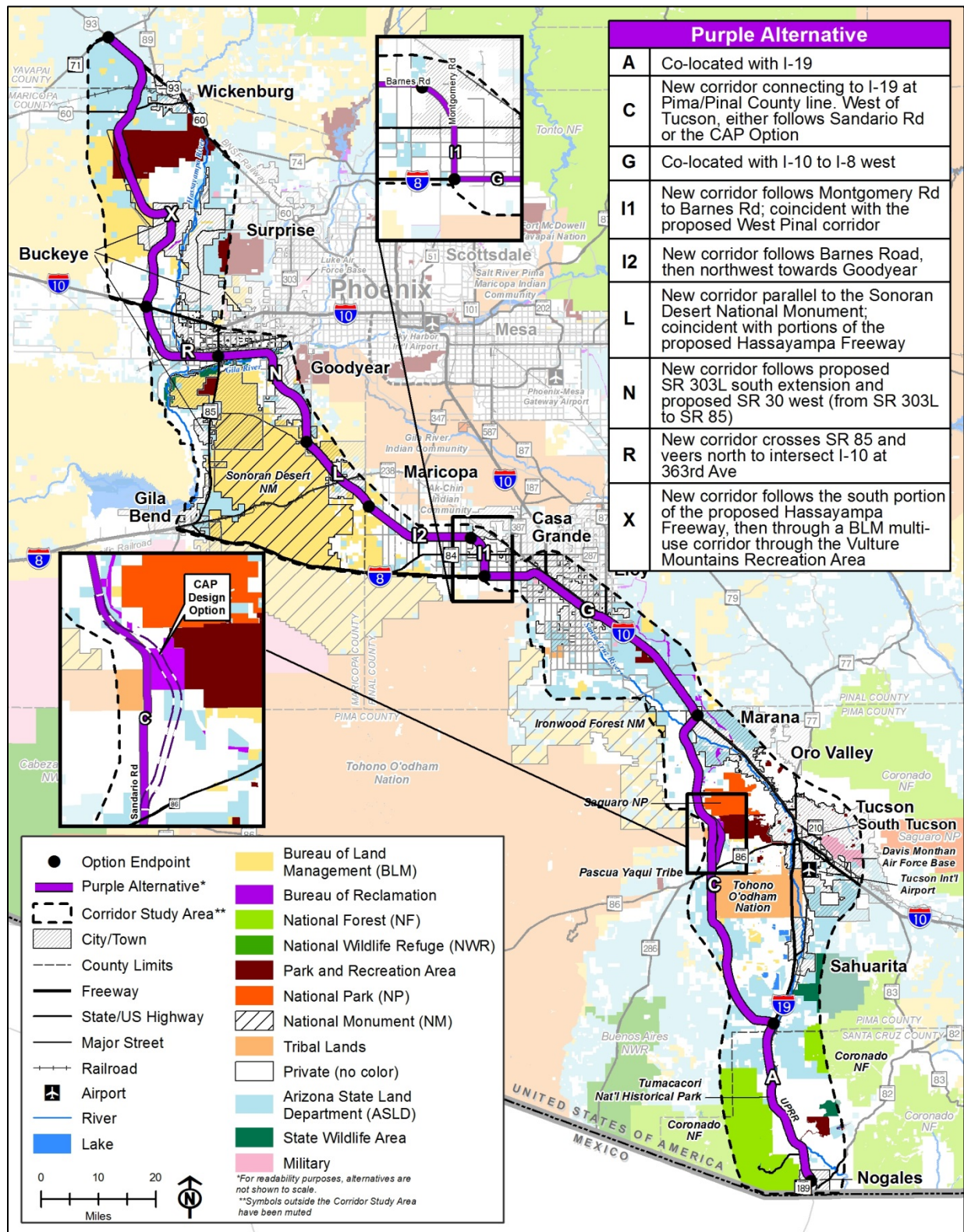


Figure 4-1 Purple Alternative

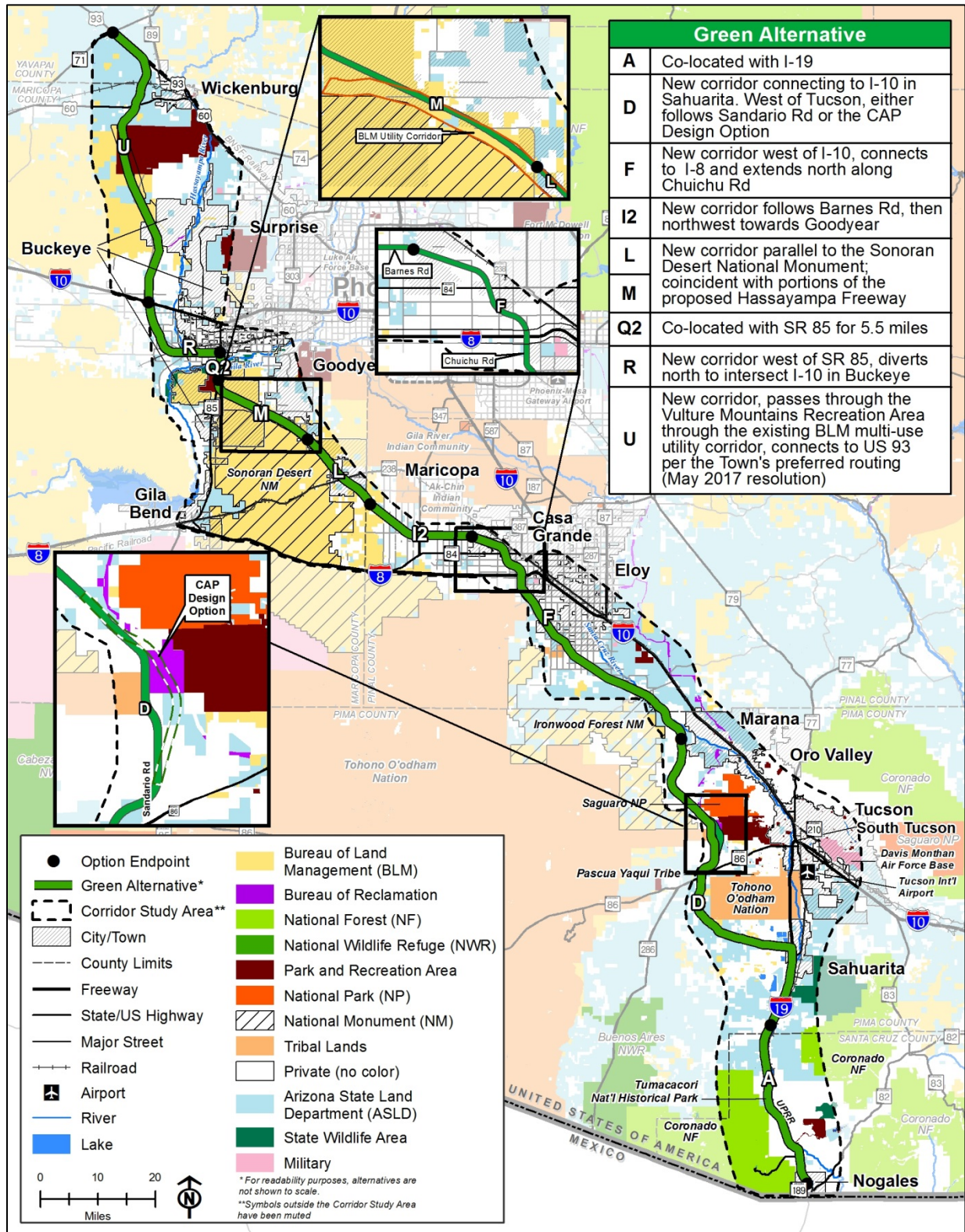


Figure 4-2 Green Alternative

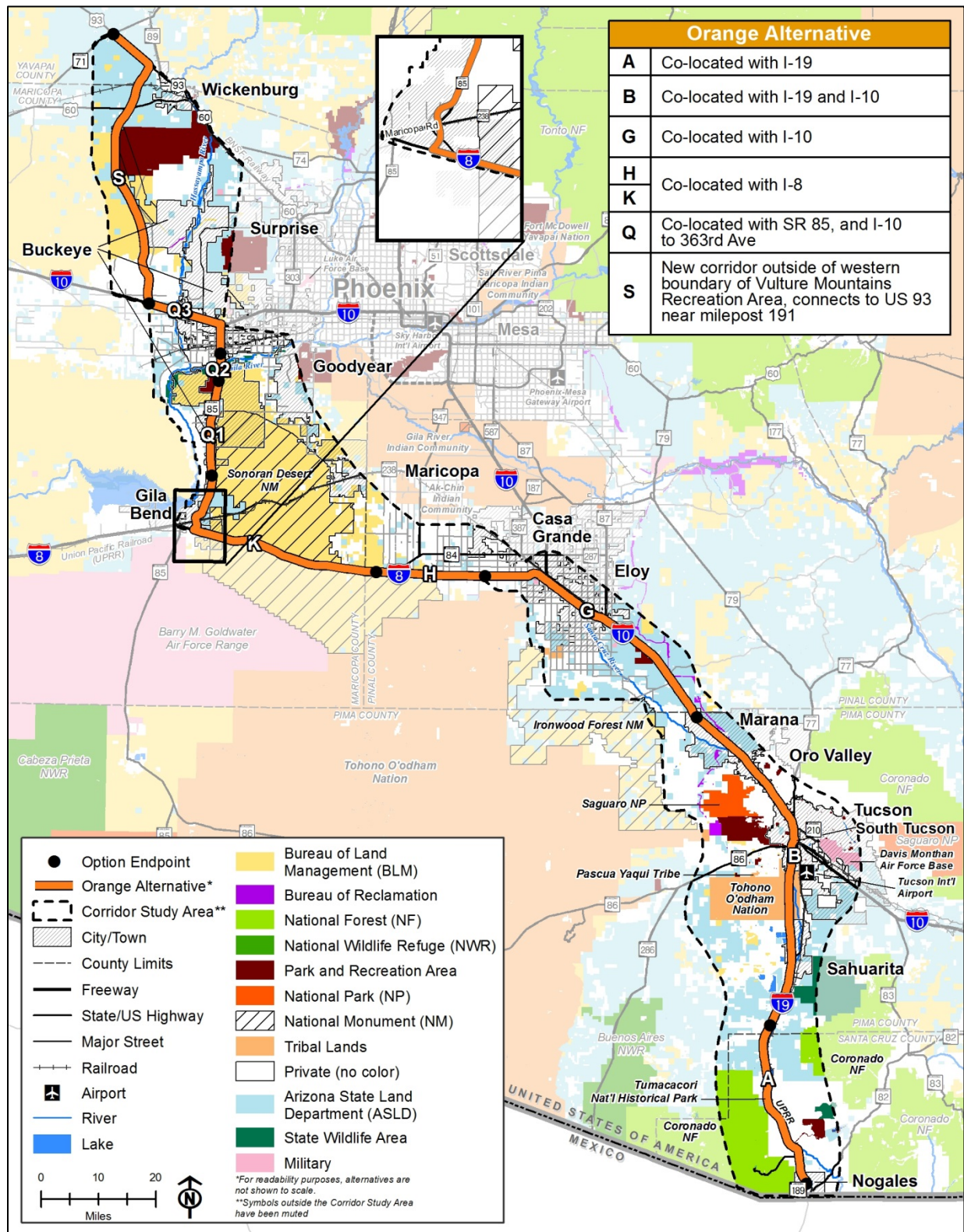


Figure 4-3 Orange Alternative



4.2 Regulatory Context and Methodology

The law on lands, wildlife and waterfowl refuges, and historic sites that is codified in Title 49 of the USC 303 states, “The Secretary of Transportation may approve a transportation program or project (other than any project for a park road or parkway under section 204 [1] of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction¹ over the park, area, refuge, or site) only if:

- 1) There is no prudent and feasible alternative to using that land; and
- 2) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use; or
- 3) The Administration determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* use, as defined in Sec. 774.17, on the property.”

4.2.1 Applicability

Section 4(f) applies to the use of significant public parks, recreation areas, wildlife and waterfowl refuges, and historic sites. Significance is determined in consultation with officials having jurisdiction over those properties (see 23 CFR 774.11, Applicability).

4.2.2 Definitions of Use

Pursuant to 23 CFR 774.17 and “except as set forth in Section 774.11 and 774.13, a ‘use’ of Section 4(f) property occurs: (1) when land is permanently incorporated into a transportation facility; (2) when there is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose as determined by the criteria in Section 774.13(d); or (3) when there is a constructive use of a Section 4(f) property as determined by the criteria in Section 774.15.”

Permanent Use – As outlined in Section 3.3.3 of FHWA’s Section 4(f) Policy Paper (FHWA 2012), an individual Section 4(f) evaluation must be completed when approving a project that requires the use of Section 4(f) property if the use, as described in Sections 3.1 and 3.2 (of the policy paper: Identification of Section 4(f) Properties and Assessing the Use of Section 4(f) Properties), results in a greater than *de minimis* use and a programmatic Section 4(f) evaluation cannot be applied to the situation (23 CFR 774.3).

¹ 23 CFR 774.17 defines officials with jurisdiction over parks, recreation areas, wildlife and waterfowl refuges, and historic sites as “(1) In the case of historic properties, the official with jurisdiction is the State Historic Preservation Office (SHPO) for the State wherein the property is located or, if the property is located on tribal land, the Tribal Historic Preservation Officer (THPO). If the property is located on tribal land but the Indian tribe has not assumed the responsibilities of the SHPO as provided for in the National Historic Preservation Act (NHPA), then a representative designated by such Indian tribe shall be recognized as an official with jurisdiction in addition to the SHPO. When the Advisory Council on Historic Preservation (ACHP) is involved in a consultation concerning a property under Section 106 of the NHPA, the ACHP also is an official with jurisdiction over that resource for purposes of this part. When the Section 4(f) property is a National Historic Landmark, the National Park Service also is an official with jurisdiction over that resource for purposes of this part. (2) In the case of public parks, recreation areas, and wildlife and waterfowl refuges, the official(s) with jurisdiction are the official(s) of the agency or agencies that own or administer the property in question and who are empowered to represent the agency on matters related to the property.”



Constructive Use – As defined in 23 CFR 774.15(a), “a constructive use occurs 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 a 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.” A project’s proximity to a Section 4(f) property is not in itself an impact that results in constructive use. Due to the subjective nature of proximity impacts, a determination of constructive use is rare.

Temporary Occupancy – 23 CFR 774.13(d) defines temporary occupancies of land from a Section 4(f) property as being “so minimal as to not constitute a use within the meaning of Section 4(f). The following conditions must be satisfied: (1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land; (2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal; (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis; (4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and (5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.”

4.2.3 Types of Section 4(f) Approvals

FHWA may not approve the use, as defined in Section 774.17 of a Section 4(f) property unless a determination is made under paragraph (a) or (b) of 23 CFR 774.3: “(1) There is no feasible and prudent avoidance alternative, as defined in Sec. 774.17, to the use of land from the property; and (2) The action includes all possible planning, as defined in Sec. 774.17, to minimize harm to the property resulting from such use; or (b) The Administration determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* use, as defined in Section 774.17, on the property.”

As stated in 23 CFR 774.17, “(1) For historic sites, *de minimis* use means that the Administration has determined, in accordance with 36 CFR part 800 that no historic property is affected by the project or that the project will have ‘no adverse effect’ on the historic property in question. (2) For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* use is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).” When a Tier 1 EIS is prepared, the regulations of Section 4(f) allow for a preliminary Section 4(f) approval of a *de minimis* use or a not *de minimis* use, provided that opportunities to minimize harm at subsequent stages in the project development process are not precluded by the Tier 1 decisions (23 CFR 774.7(e)(1)).

Two types of approvals are sought in the Section 4(f) Evaluation for I-11: a preliminary Section 4(f) approval when a first-tier, broad-scale EIS is prepared and a Nationwide Programmatic Section 4(f) Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property. Each of these approvals is defined below:

- **Preliminary Section 4(f) Approval** – “When the first-tier, broad-scale EIS is prepared, the detailed information necessary to complete the Section 4(f) approval may not be available at that stage in the development of the action. In such cases, the documentation should



address the potential impacts that a proposed action will have on Section 4(f) property and whether those impacts could have a bearing on the decision to be made. A preliminary Section 4(f) approval may be made at this time as to whether the impacts resulting from the use of a Section 4(f) property are a *de minimis* use or whether there are feasible and prudent avoidance alternatives. This preliminary approval will include all possible planning to minimize harm to the extent that the level of detail available at the first-tier EIS stage allows. It is recognized that such planning at this stage may be limited to ensuring that opportunities to minimize harm at subsequent stages in the development process have not been precluded by decisions made at the first-tier stage. This preliminary Section 4(f) approval is then incorporated into the first-tier EIS. The Section 4(f) approval will be finalized in the second-tier Study (23 CFR 774.7(e)).”

- **Nationwide Programmatic Section 4(f) Approval, Net Benefit** – FHWA has issued a Final Nationwide Programmatic Section 4(f) Evaluation and Determination for Federal-Aid Transportation Projects That Have a Net Benefit to a Section 4(f) Property. This nationwide programmatic approval is a procedural option for preparing an individual Section 4(f) Evaluation. As defined in FHWA’s guidance, *Section 4(f) Evaluation and Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property*, “this nationwide programmatic Section 4(f) evaluation has been prepared for certain federally assisted transportation improvement projects on existing or new alignments that will use property of a Section 4(f) park, recreation area, wildlife or waterfowl refuge, or historic property, which in the view of FHWA and official(s) with jurisdiction over the Section 4(f) property, the use of the Section 4(f) property will result in a net benefit to the Section 4(f) property.”

Within the same guidance, a net benefit is defined as “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.”

4.2.4 Section 4(f) Evaluation Process

4.2.4.1 Individual Section 4(f) Evaluations

Individual Section 4(f) Evaluations involve the following steps:

- **Determine Applicability** – In this step, FHWA identifies parks, recreational areas, wildlife and waterfowl refuges, and historic sites that are protected by Section 4(f) using the definitions of primary purpose and significance described in Section 4.2.1.
- **Assess Impact and Determine Use** – FHWA determines what impact a project would have on each protected property and what type of use that impact would be, using the definitions in 23 CFR 774 and described in Section 4.2.1.
- **Analyze Avoidance Alternatives** – In this step, FHWA and ADOT consider alternatives that completely avoid the potential use of a Section 4(f) property. The avoidance analysis applies the Section 4(f) feasible and prudent criteria (23 CFR 774.17(2) and (3)). “An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. An alternative is not prudent if:



Factor 1 – It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;

Factor 2 – It results in unacceptable safety or operational problems;

Factor 3 – After reasonable mitigation, it still causes:

- Severe social, economic, or environmental impacts;
- Severe disruption to established communities;
- Severe, disproportionate impacts on low-income or minority populations; or
- Severe impacts on environmental resources protected under other Federal statutes;

Factor 4 – It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;

Factor 5 – It causes other unique problems or unusual factors; or

Factor 6 – It involves multiple factors in (Factors 1 through 5) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.”

- **Determine Alternative with Least Overall Harm** – If the avoidance analysis concludes there is no feasible and prudent avoidance alternative, then in accordance with (23 CFR 774.3(c)1) FHWA “may approve only the alternative that: Causes the least overall harm in light of the statue’s preservation purpose. The least overall harm is determined by balancing the following factors: (1) the ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property); (2) the relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection; (3) the relative significance of each Section 4(f) property; (4) the views of the official(s) with jurisdiction over each Section 4(f) property; (5) the degree to which each alternative meets the purpose and need for the project; (6) after reasonable mitigation, the magnitude of any adverse effects to resources not protected by Section 4(f); and (7) substantial differences in costs among the alternatives.”
- **Consider All Planning to Minimize Harm** – After the determination that there are no feasible and prudent alternatives to avoid a Section 4(f) property, FHWA and ADOT consider and incorporate all possible planning to minimize the impacts of the Proposed Action. All possible planning, as defined in 23 CFR 774.17, means “all reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects must be included in the project.”
- **Coordination and Public Involvement** – The Section 4(f) regulations require FHWA to coordinate with the officials with jurisdiction over each of the Section 4(f) properties for which a determination is made in this Draft Preliminary Section 4(f) Evaluation. In compliance with the requirements of Section 4(f) (23 CFR 774.5), the steps in coordination include:
 - “For historic properties:
 - (i) The consulting parties identified in accordance with 36 CFR part 800 must be consulted; and
 - (ii) The Administration must receive written concurrence from the pertinent State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), and from the Advisory Council on Historic Preservation (ACHP) if participating in the



consultation process, in a finding of ‘no adverse effect’ or ‘no historic properties affected’ in accordance with 36 CFR part 800. The Administration shall inform these officials of its intent to make a *de minimis* use determination based on their concurrence in the finding of ‘no adverse effect’ or ‘no historic properties affected.’

- (iii) Public notice and comment, beyond that required by 36 CFR part 800, is not required.

– For parks, recreation areas, and wildlife and waterfowl refuges:

- (i) Public notice and an opportunity for public review and comment concerning the effects on the protected activities, features, or attributes of the property must be provided. This requirement can be satisfied in conjunction with other public involvement procedures, such as a comment period provided on a NEPA document.”

4.2.4.2 De Minimis Use Evaluations

In a *de minimis* use evaluation, the following steps apply, as stated in 23 CFR 774.7(b) and 23 CFR 774.5(c):

- **Determine that the Proposed Use is *de minimis*** – “A *de minimis* use determination under Sec. 774.3(b) shall include sufficient supporting documentation to demonstrate that the impacts, after avoidance, minimization, mitigation, or enhancement measures are taken into account, are *de minimis* uses as defined in Sec. 774.17; and that the coordination required in Sec. 774.5(b) has been completed.

- **Coordination and Public Involvement** – Prior to making *de minimis* use determinations under Sec. 774.3(b), the following coordination shall be undertaken:

(1) For historic properties: (i) The consulting parties identified in accordance with 36 CFR part 800 (Section 106) must be consulted; and (ii) FHWA must receive written concurrence from the pertinent SHPO or THPO, and from the ACHP if participating in the consultation process, in a finding of “no adverse effect” or “no historic properties affected” in accordance with 36 CFR part 800. FHWA shall inform these officials of its intent to make a *de minimis* use determination based on their concurrence in the finding of ‘no adverse effect’ or ‘no historic properties affected.’ (iii) Public notice and comment, beyond that required by 36 CFR part 800, is not required.

(2) For parks, recreation areas, and wildlife and waterfowl refuges: (i) Public notice and an opportunity for public review and comment concerning the effects on the protected activities, features, or attributes of the property must be provided. This requirement can be satisfied in conjunction with other public involvement procedures, such as a comment period provided on a NEPA document. (ii) The Administration shall inform the official(s) with jurisdiction of its intent to make a *de minimis* use finding. Following an opportunity for public review and comment as described in paragraph (b)(2)(i) of this section, the official(s) with jurisdiction over the Section 4(f) resource must concur in writing that the project will not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection. This concurrence may be combined with other comments on the project provided by the official(s).”

4.2.4.3 Nationwide Programmatic Section 4(f) Evaluations (Net Benefit)

The steps for a Nationwide Programmatic Section 4(f) Evaluation (Net Benefit) are the same as the steps for an individual Section 4(f) evaluation, except for the following:



- 1 • **Assess Impact and Determine Use** – “For historic properties, the project does not require
2 the major alteration of the characteristics that qualify the property for the National Register
3 of Historic Places (NRHP) such that the property would no longer retain sufficient integrity to
4 be considered eligible for listing. For archeological properties, the project does not require
5 the disturbance or removal of the archaeological resources that have been determined
6 important for preservation in-place rather than for the information that can be obtained
7 through data recovery. The determination of a major alteration or the importance to preserve
8 in-place will be based on consultation consistent with 36 CFR part 800.”
- 9 • **Analyze Avoidance Alternatives** – “To demonstrate that there are no feasible and prudent
10 alternatives to the use of Section 4(f) property, the programmatic evaluation analysis must
11 address alternatives that avoid the Section 4(f) property. The following alternatives avoid the
12 use of the Section 4(f) property:
 - 13 – Do nothing.
 - 14 – Improve the transportation facility in a manner that addresses the project's purpose and
15 need without a use of the Section 4(f) property.
 - 16 – Build the transportation facility at a location that does not require use of the Section 4(f)
17 property.
- 18 This list is intended to be all-inclusive. The programmatic evaluation does not apply if a
19 feasible and prudent alternative is identified that is not discussed in this document.”
- 20 • **Measures to Minimize Harm** – “The proposed project includes all appropriate measures to
21 minimize harm and subsequent mitigation necessary to preserve and enhance those
22 features and values of the property that originally qualified the property for Section 4(f)
23 protection.”
- 24 • **Coordination** – “The official(s) with jurisdiction over the Section 4(f) property agree in
25 writing with the assessment of the impacts; the proposed measures to minimize harm; and
26 the mitigation necessary to preserve, rehabilitate and enhance those features and values of
27 the Section 4(f) property; and that such measures will result in a net benefit to the
28 Section 4(f) property.

29 For historic properties, consistent with 36 CFR part 800, there must be agreement reached
30 amongst the SHPO and/or THPO, as appropriate, FHWA and the Applicant on measures to
31 minimize harm when there is a use of Section 4(f) property. Such measures must be
32 incorporated into the project.”

33 4.2.4.4 Constructive Use Evaluations

34 In a constructive use evaluation, the following steps apply, as stated in 23 CFR 774.15(d):

- 35 • **Determine Applicability** – “Identification of the current activities, features, or attributes of
36 the property which qualify for protection under Section 4(f) and which may be sensitive to
37 proximity impacts;”



- **Proximity Impacts Analysis** – “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 also should 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”
- **Coordination** – “Consultation, on the foregoing identification and analysis, with the official(s) with jurisdiction over the Section 4(f) property.”

4.3 Identification of Section 4(f) Properties

FHWA and ADOT reviewed existing maps (including Geographic Information System (GIS) data and online maps available from federal, state, county, and city agencies), searched property records, and consulted with officials with jurisdiction to identify the properties protected by Section 4(f) within the I-11 Corridor Study Area (Study Area), as defined by 23 USC 138(a) and 49 USC 303(a), for the following:

1. “Parks and recreational areas of national, state or local significance that are both publicly owned and open to the public;
2. Publicly owned wildlife and waterfowl refuges of national, state or local significance that are open to the public to the extent that public access does not interfere with the primary purpose of the refuge; and
3. Historic sites of national, state or local significance in public or private ownership regardless of whether they are open to the public.”

Public ownership and administration of parks, recreation areas and wildlife and waterfowl refuges were verified through available documentation as well as coordination with the officials with jurisdiction over those properties. Properties that meet definitions 1 and 2 above are presumed to be significant unless the official with jurisdiction over a property concludes that the site is not significant. FHWA will make an independent evaluation under such circumstances and may override the official with jurisdiction. FHWA defines significance in its Section 4(f) Policy Paper (FHWA 2012) as follows: “comparing the availability and function of the park, recreation area or wildlife and waterfowl refuge, with the park, recreation area or wildlife and waterfowl refuge objectives of the agency, community or authority, the property in question plays an important role in meeting those objectives.” In making such an evaluation, FHWA examines the primary purpose of the property. As described in FHWA’s Section 4(f) Policy Paper (response to Question 1A), primary purpose “is related to a property’s primary function and how it is intended to be managed. Incidental, secondary, occasional or dispersed activities similar to park, recreational or refuge activities do not constitute a primary purpose within the context of Section 4(f).”

As discussed in the Draft Tier 1 EIS Section 3.7, historic sites that meet definition 3 above were identified using AZSITE, a GIS-based system that serves as a consolidated informational network of recorded cultural resources, including prehistoric and historic sites and properties, and surface surveys within the State of Arizona and a 40-mile buffer around the state. Such historic sites are significant if they are listed on the NRHP or have been determined to be eligible for listing on the NRHP (Section 4(f) Policy Paper Answer to Question 2A). FHWA consults with the SHPO, the official with jurisdiction over historic sites, Tribes, and other consulting parties, and makes the determination of significance based on the context of Section 106 of the NHPA (36 CFR 800). At this Tier 1 stage, previous determinations of



eligibility are being used. Section 106 evaluations of the properties and effects will be determined during Tier 2 undertakings.

While both Section 106 and Section 4(f) are preservation legislation and are both considered in the NEPA process, Section 106 applies to all federal undertakings and Section 4(f) applies to only US Department of Transportation (USDOT) actions. Section 106 considers the “effect” of an undertaking, while Section 4(f) considers the “use of a property” by an undertaking. Section 4(f) is not integral to Section 106, but Section 106 is integral to Section 4(f) compliance insofar as historic sites are concerned. Section 106 requires consultation and possibly mitigation, while Section 4(f) requires analysis of avoidance, then all possible planning to minimize harm.

4.3.1 Parks, Recreation Areas, or Wildlife and Waterfowl Refuges

Table 4-1 (Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area) lists the Section 4(f) properties from south to north in the Study Area.

Figure 4-4 (Section 4(f) Properties in the Study Area) shows the location of each property in relation to the Build Corridor Alternatives.

The following properties in the Study Area were evaluated and preliminarily determined to not be protected by Section 4(f):

- Santa Rita Experimental Range and Wildlife Area. A memo providing a preliminary evaluation of wildlife areas is in **Appendix F** (Supporting Documentation for Draft Preliminary Section 4(F) Evaluation: ADOT Memo Entitled “Applicability of Identifying Wildlife Areas and Section 4(f) Properties for the I-11 Tier 1 EIS”). According to the memo, the primary purpose of the property is for research. Since the purpose is not a public park, recreation area, or wildlife or waterfowl refuge, the preliminary determination is that it does qualify for protection under Section 4(f).
- Ironwood Forest National Monument. This property, which is mainly owned and managed by the Bureau of Land Management (BLM), does not function as or is not designated within its BLM Resource Management Plan as “a significant park, recreation area, or wildlife and waterfowl refuge.” The Ironwood Forest National Monument was designated to protect objects of scientific interest within the Monument. A memo discussing the evaluation of Ironwood Forest National Monument is in **Appendix F** (Supporting Documentation for Draft Preliminary Section 4(F) Evaluation: Memo entitled “White Paper Regarding Potential Section 4(f) Constructive Use Impacts: Ironwood Forest National Monument, Tucson Mitigation Corridor, Saguaro National Park, and Tucson Mountain Park”).
- Tucson Mountain Wildlife Area. This area is managed by various agencies and is made up of publicly and privately-owned land. This broad area does not qualify for Section 4(f) protection; however, Tucson Mountain Park, Saguaro National Park (SNP), and the Tucson Mitigation Corridor (TMC) fall within this wildlife area and do qualify for Section 4(f) protection.
- Sonoran Desert National Monument. The Sonoran Desert National Monument Record of Decision and Approved Resource Management Plan, dated September 2012, states that the monument was designated to protect a magnificent example of untrammelled Sonoran desert landscape with an extraordinary array of biological, scientific, and historic resources. The land is mainly managed by BLM. Because the purpose is not related to a public park, recreation area, or wildlife or waterfowl refuge, it is not protected by Section 4(f). There are historic and recreation resources within the monument that are protected by Section 4(f),



and these are included in **Table 4-1** (Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area) and **Table 4-2** (Historic Sites Protected by Section 4(f) in the Project Corridors) and on **Figure 4-4** (Section 4(f) Properties in the Study Area).

4.3.2 Historic Sites

Historic sites (including historic properties and archaeological sites) are identified and discussed in Section 3.7 of this Draft Tier 1 EIS. The sites include those properties that have been (1) previously determined eligible for listing by others or (2) are already listed on the NRHP. **Table 4-2** (Historic Sites Protected by Section 4(f) in the Project Corridors) lists the historic properties within the 2,000-foot-wide Build Corridor Alternatives from south to north. **Figure 4-4** (Section 4(f) Properties in the Study Area) shows the location of each property in relation to the Build Corridor Alternatives.

Potentially eligible sites were not considered in the Tier 1 level of evaluation but would be considered during Tier 2. During Tier 2 studies, the 2,000-foot-wide corridor of a selected Build Corridor Alternative would be refined to a specific roadway alignment. At that time, historic and archaeological resources will be surveyed, Section 106 consultation will be undertaken, and a Final Section 4(f) Evaluation will be conducted. The findings of this Draft Section 4(f) Evaluation could be refined during Tier 2 if additional historic and/or archaeological resources are identified at that time. Tier 2 activities will include examination of means to avoid, mitigate, and/or minimize harm to protected resources.



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
Multiple Counties					
1	Juan Bautista de Anza National Historic Trail	Recreation trail (multi-state)	Santa Cruz, Pima, Pinal, and Maricopa counties, Arizona (part of 1,200-mile multi-state historic trail); Santa Cruz County: 4.5 miles between Tumacacori National Historical Park to Tubac Presidio State Historic Park; Pima County: Elephant Road to Torres Blanca Golf Club (approx. 7 miles), on the east side of and parallel to I-19; part of Pinal County-adopted and proposed 80-mile corridor (TR-2); 13 miles in Maricopa County on BLM land co-aligned with Mormon Battalion Trail and Butterfield Overland Mail Route at Butterfield Pass	National Park Service (NPS) administers; implemented by other government agencies, including counties, private nonprofits (such as the Anza Trail Foundation), and private citizens	A commemorative route of the de Anza expeditions; Study Area includes existing and proposed trail segments, including walking, auto, and off-road elements



**Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area
(Continued)**

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
Santa Cruz County					
2	Nogales Recreation Area and existing/planned critical habitat areas (portion of Coronado National Forest)	Recreation area	303 Old Tucson Road, Nogales, AZ	US Department of Agriculture (USDA), Forest Service owns land	Forest is 1.7 million acres; resource management for multiple uses (forest, mining, range grazing, wilderness, recreation); areas developed for recreation are not close to I-19; critical wildlife habitat areas – this area was identified in the recent EIS for determining motorized and non-motorized access. Roadless areas or wilderness: Pajarita and Mount. Wrightson
Pima County					
3	Tubac Presidio State Historic Park	Public park	1 Burruel Street, Tubac, AZ 85646	AZ State Parks	8 acres, historical interpretation
4	Historic Hacienda de la Canoa (Raul M. Grijalva Canoa Ranch Conservation Park)	Historic site and recreation area	5375 S. I-19 Frontage Road, Green Valley, AZ	Pima County	4,800 acres, historical and natural resources preservation and interpretation
5	Canoa Preserve Park	Public park	35 S. Camino de la Canoa, Green Valley, AZ	Pima County	6 acres, baseball fields, ramada with picnic table
6	Quail Creek Veterans Municipal Park	Public park	1905 N. Old Nogales Highway, Sahuarita, AZ	Town of Sahuarita	25 acres, playground, picnic area, walking paths, dog area
7	Parque Los Arroyos	Public park	18225 South Avenida Arroyo Seco, Sahuarita, AZ	Town of Sahuarita	7 acres, playground, basketball court, picnic areas



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
8	Anamax Park	Public park	17501 South Camino Royale De Las Quintas, Sahuarita, AZ	Town of Sahuarita	42 acres, recreation center, ball fields, dog park
9	Sahuarita Lake Park	Public park	15466 S. Rancho Sahuarita Boulevard, Sahuarita, AZ	Town of Sahuarita	15 acres with lake, boating, pathway, amphitheater, gazebos
10	North Santa Cruz Park	Public park	14455 S. Rancho Sahuarita Blvd, Sahuarita, AZ	Town of Sahuarita	15 acres, ball fields, skating and playground areas, picnic facilities, pathway, restrooms
11	Summit Park	Public park	1800 East Summit Street, Tucson, AZ	Pima County	9 acres, ball fields, picnic area, playground
12	Star Valley Park	Public park	6852 West Brightwater Way, Tucson, AZ	Pima County	14 acres, basketball court, dog park, trails, picnic areas, playgrounds
13	Lawrence Park	Public park	6777 South Mark Road, Tucson, AZ	Pima County	30 acres, ball fields, playground, picnic areas, path
14	Mission Ridge Park	Public park	3121 West Tucker Street, Tucson, AZ	Pima County	6 acres, ball fields, picnic area
15	Ebonee Marie Moody Park	Public park	6925 South Cardinal Avenue, Tucson, AZ	Pima County	5 acres, ball fields, playground, picnic area, horseshoes
16	Pima Community College, Desert Vista Campus	Public access to recreation facilities	5901 South Calle Santa Cruz, Tucson, AZ	City of Tucson	4.6 acres, fitness center and ball fields
17	Mission Manor Park	Public park	701 West Calle Ramona, Tucson, AZ	City of Tucson	6 acres, ball fields adjacent to Mission Manor Elementary School



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
18	CSM Martin "Gunny" Barreras Memorial Park (formerly Sunnyside Park)	Public park	5811 South Del Moral Boulevard, Tucson, AZ	City of Tucson and Sunnyside Unified School District	33 acres, ball fields adjacent to Sunnyside District School
19	Branding Iron Park	Public park	5900 Branding Iron Circle, Tucson, AZ	Pima County	2 acres, basketball court, picnic area, swings
20	Oak Tree Park	Public park	5433 South Oak Tree Drive, Tucson, AZ	City of Tucson	8 acres, ball fields, ball court
21	Winston Reynolds – Manzanita District Park	Public park	5200 South Westover Avenue, Tucson, AZ	Pima County	69 acres, community center, pool
22	TMC	Wildlife travel corridor	West of Tucson Mountain Wildlife Area, Pima County, AZ	Owned and managed by Bureau of Reclamation (Reclamation) in cooperation with the US Fish and Wildlife Service (USFWS), Arizona Game and Fish Commission, and Pima County (funding by Reclamation)	2,514 acres, restore and conserve wildlife population in Tucson Mountains by providing for wildlife travel on public lands and across the Central Arizona Project (CAP) aqueduct
23	Santa Cruz River Park	Public park	West of I-10, Tucson	Pima County	459 acres, trails, play equipment



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
24	Robles Pass at Tucson Mountain Park	Public park	3500 West River Road, Tucson, AZ	Pima County	992 acres, mountain biking trails
25	La Mar Park	Public park	900 West Lincoln Street, Tucson, AZ	City of Tucson	3 acres, playground
26	Tucson Mountain Park	Public park	2451 West McCain Loop, Tucson, AZ	Pima County	19,308 acres, camping, trails, shooting range, overlook
27	John F. Kennedy Park	Public park	3700 South Mission Road, Tucson, AZ	City of Tucson	163 acres, pool, ball fields, play equipment
28	St. John's School Skate Park	Public park	602 West Ajo Way, Tucson, AZ	City of Tucson	4 acres, skate park
29	Julian Wash Greenway	Public trail	South side of Tucson, along and across I-10, Tucson, AZ	City of Tucson	14 miles, paved multi-use trail
30	Julian Wash Archaeological Park	Public park	2820 South 12th Avenue, Tucson, AZ	City of Tucson	9 acres, sculpture garden
31	El Paso and Southwestern Greenway (planned trail)	Planned trail	Former railroad corridor between Downtown Tucson and Kino Sports Complex, South Tucson, AZ	City of Tucson	4 miles, planned multi-use historic interpretation and recreation trail
32	Vista Del Pueblo Park	Public park	1800 W. San Marcos Boulevard, Tucson, AZ	City of Tucson	2.8 acres, playground, open space
33	Ormsby Park	Public park	1401 South Verdugo Avenue, Tucson, AZ	City of Tucson	6 acres, ball fields, ball courts, playground, picnic area
34	Ochoa Park	Public park	3457 North Fairview Avenue, Tucson, AZ	City of Tucson	0.7 acre, ball fields, picnic area



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
35	Santa Rita Park	Public park	South 3rd Avenue, Tucson, AZ	City of Tucson	22 acres, ball fields, skate park
36	Tumamoc Preserve	Nature preserve and National Historical Landmark	Off West Anklam Road, just west of North Silverbell Road, Pima County, AZ	University of Arizona	860 acres, site of the Desert Botanical Laboratory of the Carnegie Institution of Washington, prehistoric resources, natural resources conservation, public access
37	Sentinel Peak Park	Public park	1000 Sentinel Peak Road, South Tucson, AZ	City of Tucson	373 acres, mountaintop views, gazebo
38	Verdugo Park	Public park	South Verdugo Avenue, Tucson, AZ	City of Tucson	0.8 acre, playground
39	Santa Rosa Park	Public park	1055 South 10th Avenue, Tucson, AZ	City of Tucson	8 acres, ball fields, ball courts
40	Parque De Orlando Y Diego Mendoza	Public park	18th Street and 8th Avenue, Tucson, AZ	City of Tucson	0.3 acre, memorial plaque, and seating
41	El Paso and Southwestern Greenway (existing trail)	Recreation trail	Former El Paso and Southwestern Railroad corridor, Tucson and South Tucson, AZ	City of Tucson	0.2 mile, multi-use path
42	El Parque De San Cosme	Public park	496 West Cushing Street, Tucson, AZ	City of Tucson	1 acre, gazebo. and green space
43	Rosendo S. Perez Park	Public park	424 South Main Avenue, Tucson, AZ	City of Tucson	0.2 acre, fountain, mural
44	La Pilita	Public park	420 South Main Avenue, Tucson, AZ	City of Tucson	0.2 acre, adobe building adjacent to Rosendo S. Perez Park



**Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area
(Continued)**

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
45	El Tiradito Wishing Shrine	Public park	400 South Main Avenue, Tucson, AZ	City of Tucson	0.1 acre, shrine
46	Garden of Gethsemane	Public park	670 West Congress Street, Tucson, AZ	City of Tucson	1.3 acres, sculpture garden
47	La Placita Park	Public park	West Broadway near South Church Avenue, Tucson, AZ	City of Tucson	0.4 acre, park closed, according to the City website, as of July 2017
48	Viente De Agosto Park	Public park	Congress Street and South Church Avenue, Tucson, AZ	City of Tucson	2 acres, park closed, according to the City website, as of July 2017
49	Bonita Park	Public park	20 North Bonita Avenue, Tucson, AZ	City of Tucson	1.4 acres, trail and green space along river
50	Sunset Park	Public park	255 West Alameda Street, Tucson, AZ	City of Tucson	1 acre, urban plaza, walkways, landscaping
51	El Presidio Park	Public park	160 West Alameda Street, Tucson, AZ	City of Tucson	2 acres, urban plaza, veterans' memorials, rose garden, fountain, sculptures
52	Jacome Plaza	Public park	101 North Stone Avenue, Tucson, AZ	City of Tucson	2 acres, walkways, landscaping, fountain, seating
53	Christopher Franklin Carroll Centennial Park	Public park	1 West Paseo Redondo, Tucson, AZ	City of Tucson	0.1 acre, path, seating, green space, plaques
54	Presidio San Augustin Del Tucson	Public park	133 West Washington Street, Tucson, AZ	City of Tucson	0.8 acre, recreated 18th Century Spanish presidio
55	Alene Dunlap Smith Garden	Public park	355 North Granada Avenue, Tucson, AZ	City of Tucson	0.1 acre, sculpture garden



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
56, 57	David G. Herrera and Ramon Quiroz Park (formerly Oury Park)	Public park	600 W. Saint Mary's Road, Tucson, AZ	City of Tucson	7 acres, Oury Recreation Center, softball fields, basketball court, walking path, picnic area, play equipment
58	Greasewood Park	Public park	1075 North Greasewood Road, Tucson, AZ	City of Tucson	152 acres, natural resources preservation and orienteering
59	Estevan Park	Public park	1001 North Main Avenue, Tucson, AZ	City of Tucson	8 acres, ball fields, ball courts, picnic area, playground
60	Feliz Paseos Park	Public park	1600 North Camino de Oeste, Tucson, AZ	Pima County	57 acres, environmental education, trails
61	Joachim Murrieta Park	Public park	1400 North Silverbell Road, Tucson, AZ	City of Tucson	51 acres, ball fields
62	Francesco Elias Esquer Park	Public park	1331 North 14th Avenue, Tucson, AZ	City of Tucson	6 acres, playground, ramada
63	Manuel Valenzuela Alvarez Park	Public park	1945 North Calle Central, Tucson, AZ	City of Tucson	0.2 acre, playground
64	SNP	Public park	3693 S. Old Spanish Road, Tucson, AZ	NPS	91,327 acres total, including approximately 25,000 acres for SNP West, historic and nature resource preservation, recreation (not an historic property)
65	Juhan Park	Public park	1770 West Copper Street, Tucson, AZ	City of Tucson	15 acres, ball fields
66	Silverbell Golf Course	Public recreation facility	3600 N. Silverbell Road, Tucson, AZ	City of Tucson	327 acres, golf course
67	Jacobs Park	Public park	3300 North Fairview Avenue, Tucson, AZ	City of Tucson	48 acres, ball fields, pool, picnic area, playground



**Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area
(Continued)**

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
68	Sweetwater Preserve	Wildlife preserve	4001 North Tortolita Road, Tucson, AZ	Pima County	891 acres, of preserved land, multi-use trails
69	Sweetwater Wetlands Park	Water treatment facility with public access and education	Sweetwater Drive, Tucson, AZ	City of Tucson	58 acres, pathways, environmental education, nature observation, wastewater recharge
70	Christopher Columbus Park	Public park	4600 North Silverbell Road, Tucson, AZ	City of Tucson	277 acres, fishing lake, paths, dog park
71	Flowing Wells Park	Public park	5510 North Shannon Road, Tucson, AZ	Pima County	26 acres, ball fields, dog park, picnic areas, playgrounds
72	Dan Felix Memorial Park (formerly Peglar Wash Park)	Public park	5790 North Camino de la Tierra, Tucson, AZ	Pima County	40 acres, ball fields, trail
73	Pima Prickly Park	Public park	3500 West River Road, Tucson, AZ	Pima County	10 acres, paths, picnic areas
74	Rillito River Park	Public park	I-10 to North Craycroft Road along Rillito River, Tucson, AZ	Pima County	6 acres, linear park
75	Richardson Park	Public park	3535 West Green Trees Drive, Tucson, AZ	Pima County	4 acres, ball fields, picnic areas, playground, ball courts
76	Ted Walker Park	Public park	6751 North Casa Grande Highway, Marana, AZ	Pima County	61 acres, Mike Jacob Sportspark (ball fields, restrooms)
77	Ann Day Community Park (formerly Northwest Park)	Public park	7601 North Mona Lisa Road, Tucson, AZ	Pima County	21 acres, ball fields, dog park, trails, open space



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
78	Northwest YMCA Community Center	Recreation center	7770 North Shannon Road, Tucson, AZ	Pima County	14 acres, gymnasium, ball courts, exercise facilities, activity programs
79	Canada Del Oro Christine Taylor Green Memorial River Park	Public park	North Shannon Road at the Oro River, Tucson, AZ	Pima County	26 acres, riverside trail
80	Denny Dunn Park	Public park	4400 West Massingale Road, Tucson, AZ	Pima County	5 acres, ball fields, playground, picnic area
81	Crossroads at Silverbell District Park	Public park	7548 North Silverbell Road, Marana, AZ	Town of Marana	48 acres, ball fields, ball courts, picnic area, playgrounds, dog park
82	Continental Reserve Community Park	Public park	8568 North Continental Reserve Loop, Marana, AZ	Town of Marana	10 acres, ball court, picnic area, playground, path
83	Sunset Pointe Park	Public park	8535 North Star Grass Drive, Tucson, AZ	Pima County	4 acres, picnic area, playground, ball field
84	El Rio Neighborhood Park	Public park	10160 North Blue Crossing Way, Marana, AZ	Town of Marana	3 acres, green space, ball court, ramada
85	Rillito Vista Park	Public park	8820 West Robinson Street, Rillito, AZ	Pima County	2 acres, ball courts, playground, picnic area
86	Santa Cruz River Park	Public park	North of El Rio, Tucson, AZ	City of Tucson	10 acres, disc golf course, trails
87	Ora Mae Harn Park	Public park	13250 North Lon Adams Road, Marana, AZ	Town of Marana	35 acres, ball fields, ball courts, picnic areas, playgrounds, community center



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
88	Tortolita Preserve	Public park	North Dove Mountain Road, Marana, AZ	Town of Marana	2,400 acres of preserved land for wildlife habitat, trails
89	San Lucas Community Park	Public park	14040 North Adonis Road, Marana, AZ	Town of Marana	14 acres, ball fields, ball courts, picnic areas, playgrounds, dog park
90	Anza Park	Public park	Along Santa Cruz River near Pinal County border, Tucson, AZ	Pima County	228 acres, undeveloped
Pinal County					
91	Picacho Peak State Park	Public park	15520 Picacho Peak Road, Picacho, AZ	Arizona State Parks	3,747 acres, Visitor Center, picnic areas, shelter, camping areas, rest rooms
92	Pinal County West/ Kortsen Park	Community park	50801 W. Highway (Hwy) 84, adjacent to Route 8, Stanfield, AZ	Pinal County	160 acres, camping, picnicking, trails
93	Palo Verde Regional Park (Pinal County Parks	Public recreation land	Eastern edge of Monument at western County border, between AZ State Route (SR) 238 and I-8, Pinal County, AZ	Pinal County	22.810 acres of the Monument's 12.2 million acres; picnic and play areas, camping, shooting and other sports, motorized and non-motorized trails
94	Butterfield Pass Trail segment	Recreation trail	Sonoran Desert National Monument near Maricopa Mountain Pass, known as the Butterfield Pass Trail Junction off Hwy 238; co-aligned with Mormon Battalion trail route, Gila Pioneer Route and De Anza trail route, Maricopa County, AZ	BLM	31 acres, 4-wheel drive and hiking route; BLM kiosk off Hwy 238, historic markers for Butterfield Pass and Mormon Battalion Trail routes



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
95	Arlington Wildlife Area	State Wildlife Area, wildlife preserve	West bank of Gila River, 3.5 miles south of Arlington and 15 miles southwest of Buckeye, Maricopa County, AZ	Arizona Game and Fish Commission and other agencies	2,574 acres, wildlife habitat area, public access for hunting and fishing
96	Powers Butte Wildlife Area	Wildlife habitat	East side of Gila River, 20 miles north of Gila Bend, Maricopa County, AZ	Arizona Game and Fish Commission and other agencies	1,947 acres, wildlife habitat preservation (riparian and aquatic habitat)
Maricopa County					
97	Buckeye Hills Regional Park	Public park	26700 W Buckeye Hills Drive, Buckeye, AZ	Maricopa County	4,648 acres, park, restrooms
98	Robbins Butte Wildlife Area	Wildlife habitat	Both sides of Route 85, 7 miles south of Buckeye, AZ	Arizona Game and Fish Department and other agencies	5,676 acres, wildlife habitat preservation (food and nesting habitat for game birds; enhancing riparian habitat) and interpretation (170 acres under jurisdiction of Public Land Order)
98a	Public Land Order (PLO) 1015 Lands and adjacent AGFD parcels	Wildlife refuge	Lower Gila River Wildlife area	Owned by US Fish and Wildlife Service; managed by Arizona Game and Fish Department (AGFD)	Multiple, undeveloped PLO 1015 parcels are designated as "Coordination areas" under the National Wildlife Refuge Act; adjacent AGFD parcels are those that were purchased in furtherance of the Department of the Interior/AGFD Cooperative Agreement from 1954, clause 7.



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
99	Foothills Community Park	Public park	12795 S. Estrella Parkway, Goodyear, AZ	Town of Goodyear	18 acres, ball fields, picnic tables and barbeque grills, amphitheater, concessions, walking path
100	White Tank Mountain Regional Park	Public park	20304 W. White Tank Mountain Road, Waddell, AZ	Maricopa County	29,200 acres, nature center, picnicking, hiking, biking, horseback riding, camping
100a	Skyline Regional Park	Public park and preserved land	2600 North Watson Road, Buckeye, AZ	BLM owned; managed by City of Buckeye	7,700 acres, trails, campsites, interpretive programs
101	Vulture Mountains Recreation Management Zone (RMZ)	Recreation areas within larger BLM land holding to be developed	South of US Hwy 60 Wickenburg, AZ	BLM	70,452 acres, hiking and off-highway vehicle trails, picnic and camping areas; master-planned amenities include: multi-use trails, motorized uses, equestrian uses, picnicking, camping, day use, archery, interpretive/educational uses, wildlife and nature viewing, historical interpretation, hunting, geocaching, and other miscellaneous uses; County-planned recreation areas in a proposed lease area; contains a designated multi-use corridor that allows for non-conservation uses



Table 4-1 Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
102	Hassayampa River Preserve	Nature preserve with public access	West side of US 60 from N. Garden City Road to N.100th Avenue, Maricopa County, AZ	The Nature Conservancy in partnership with Maricopa County Parks and Recreation Department	770 acres, nature preserve (planned component of Vulture Mountains RMZ with public access for hiking, walking, wildlife viewing. The Nature Conservancy to place conservation easement to protect natural values.
103	Wishing Well Park	Public park	Wickenburg Way at US 60/US 93 roundabout, Wickenburg, AZ	Town of Wickenburg	1 acre, wishing well, Hassayampa River Walk pedestrian bridge, event facility
104	Hassayampa River Walk	Public park	Bridge over Hassayampa River at US 60/US 93 roundabout, Wickenburg, AZ	Town of Wickenburg	1 acre, pedestrian, bicycle, and event facility
105	Coffinger Park	Public park	Tegner Street at Swilling Avenue (west side of US 93), Wickenburg, AZ	Town of Wickenburg	13.6 acres, pool, skate park, recreation building, tennis courts, play equipment, walking path
106	Constellation Park	Public park	1201 Constellation Road (east side of US 93), Wickenburg, AZ	Town of Wickenburg	311 acres, campgrounds, rodeo grounds, shooting range
Yavapai County					
	None found				

SOURCES: Online information obtained from websites provided by federal (BLM, Reclamation, USDA, USFWS, US Forest Service, and NPS), state (Arizona Game and Fish Commission and Arizona State Parks), county (Pima, Pinal, Maricopa, Santa Cruz, and Yavapai) and municipal (City of Buckeye, Town of Goodyear, City of Nogales, Town of Sahuarita, Town of Marana, City of Tucson, and Town of Wickenburg) agencies with jurisdiction as well as by The Nature Conservancy. Accessed June and July 2017.

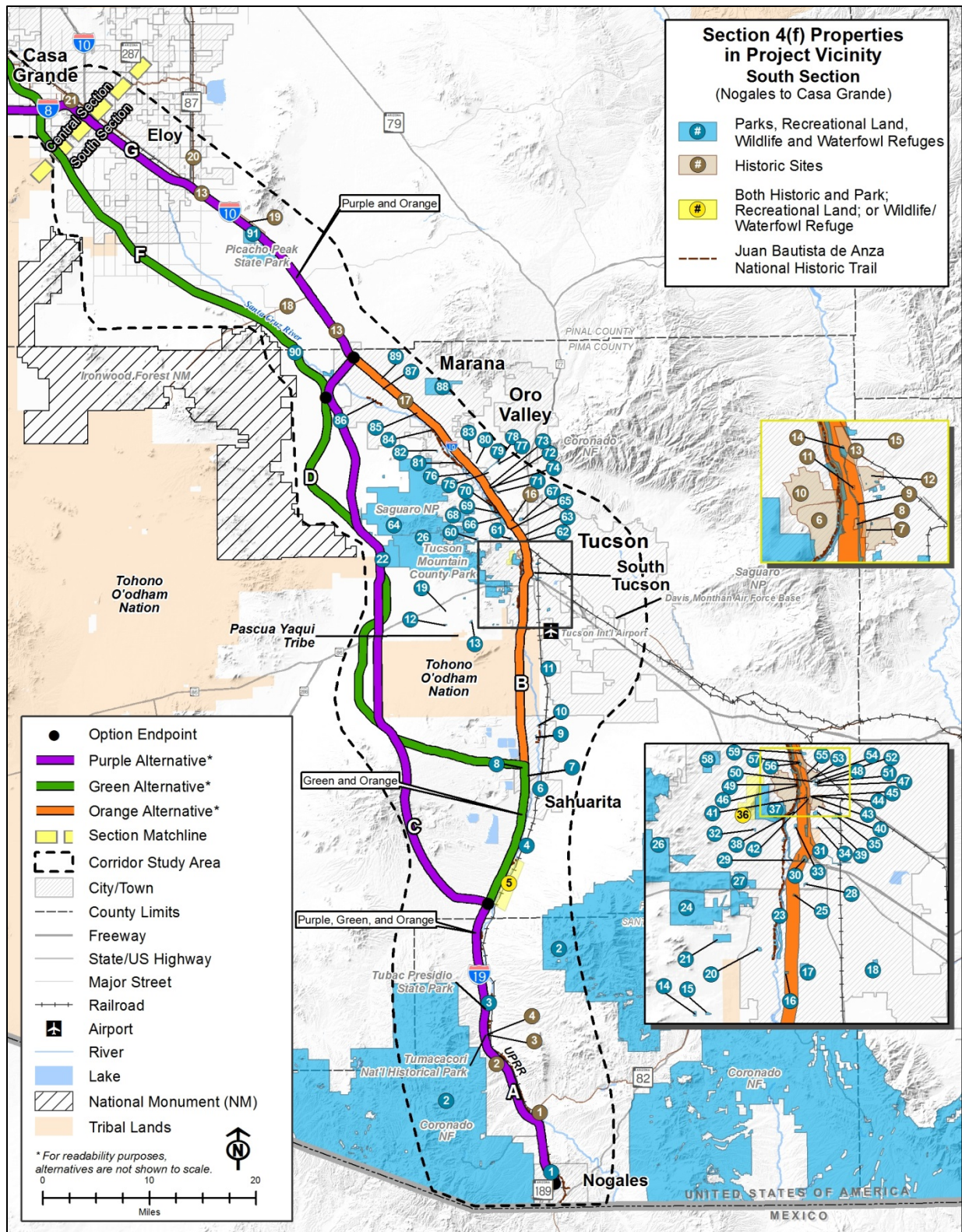


Figure 4-4 Section 4(f) Properties in the Study Area

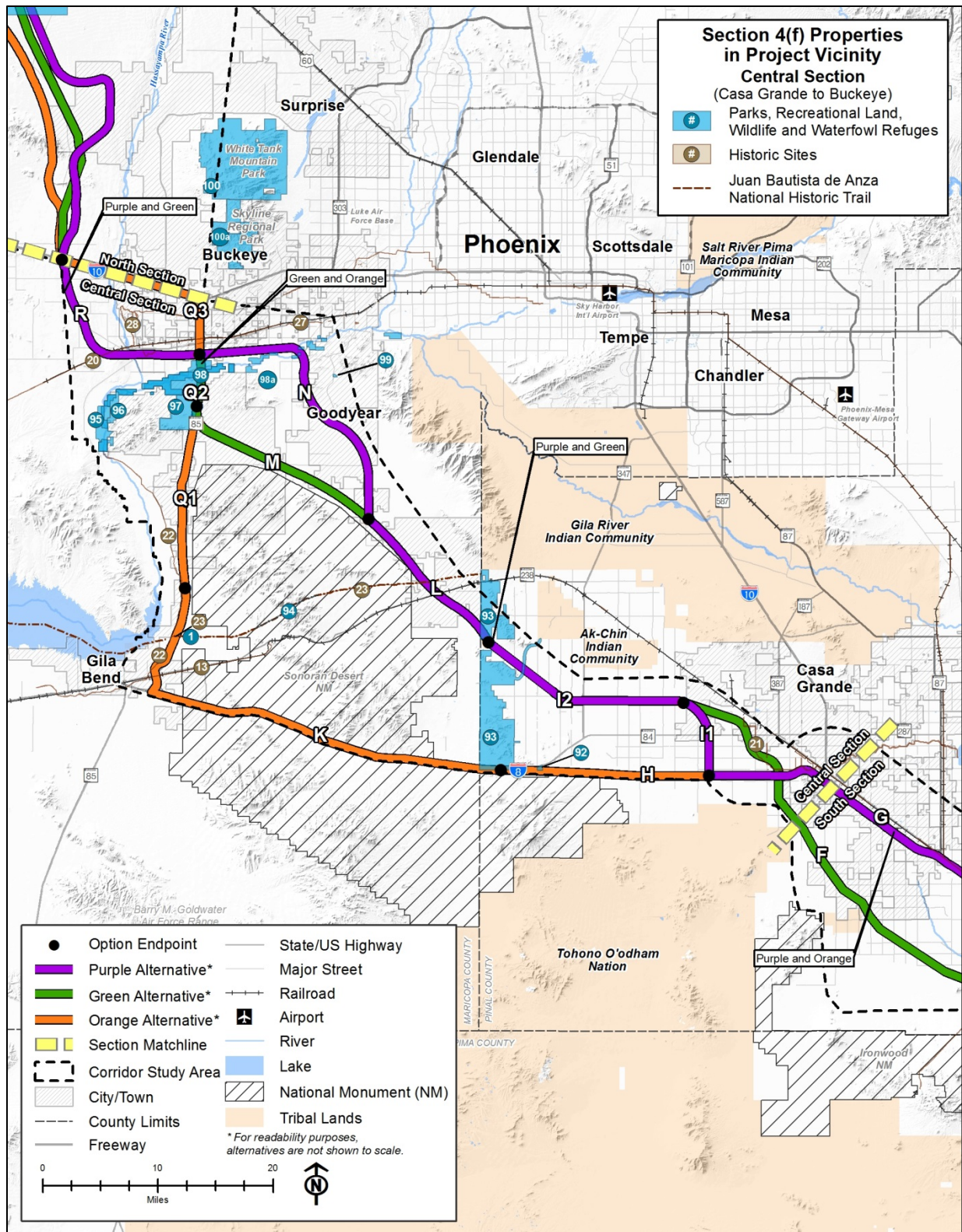


Figure 4-4 Section 4(f) Properties in the Study Area (Continued)

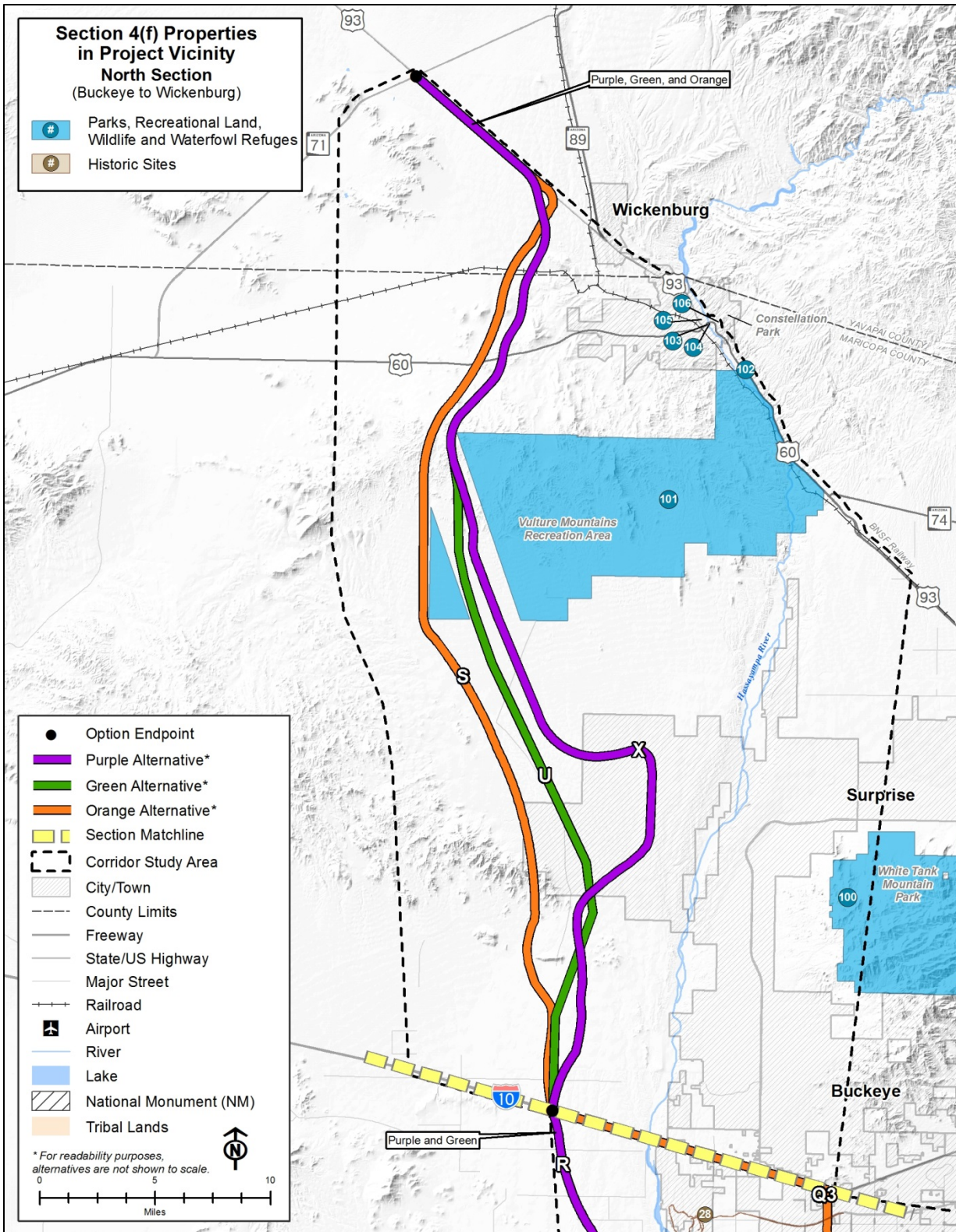


Figure 4-4 Section 4(f) Properties in the Study Area (Continued)



Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
Multiple Counties					
13	Southern Pacific Railroad (now Union Pacific), including Phoenix Main Line (AZ A:2:40(ASM))	Historic railroad corridor (1865-1988)	Maricopa, Pinal, and Pima counties	SHPO	250 miles, some segments were determined NRHP-eligible, Criterion A for association with the expansion of rail travel
18	Arizona Southern Railroad – railroad grade AZ AA:10:19(ASM)	Historic railroad corridor (1904-1933)	Maricopa, Pinal, and Pima counties	SHPO	17 miles, some segments were determined NRHP-eligible, Criterion A for association with the movement of mined materials
Santa Cruz County					
1	New Mexico and Arizona Railroad: Nogales Branch, AZ EE:4:43(ASM)	Railroad	City of Nogales, AZ	SHPO	4 acres, historic railroad property in active use; NRHP-eligible, Criterion A for significance in railroad development
2	Otero Cemetery near Palo Parado interchange, AZ DD:8:165(ASM)	Historic site	Tubac, AZ	SHPO	0.2 acre, NRHP-eligible, Criterion A and Criterion B for significant contribution to area settlement history
3, 4	Tumacacori National Monument and Museum (National Historical Park)	Historic site (three 17th and 18th Century missions and museum complex)	1895 E. Frontage Road, Tumacacori, AZ 85640	NPS	360 acres, historical and natural resources conservation and interpretation; NHL-listed, 1987, Criterion A for association with Spanish Colonial Jesuit mission period (17th and 18th centuries) and Criterion C for Mission and Spanish Colonial architecture



Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
Pima County					
5	Canoa Ranch Rural Historic District (Hacienda de la Canoa, Raul M. Grijalva Canoa Ranch Conservation Park)	Historic site (1912-1951) and recreation area	5375 S. I-19 Frontage Road, Green Valley, AZ	SHPO	4,700 acres, NRHP-listed, 2016, Criterion A for association with cattle ranching in AZ and Criterion C for cluster of features associated with the headquarters of an early ranching and agriculture operation
6	Agustin del Tucson Mission site, AZ BB:13:6(ASM)	Homestead	City of Tucson, AZ	SHPO	194 acres, reconstructed wall, garden; NRHP-eligible, Criterion A for significance as mission settlement
38	Tumamoc Preserve	National Historical Landmark and nature preserve	Off West Anklam Road, just west of North Silverbell Road, Pima County, AZ	University of Arizona	860 acres, site of the Desert Botanical Laboratory of the Carnegie Institution of Washington, prehistoric resources, natural resources conservation, public access
7	Barrio El Hoyo Historic District	Historic neighborhood (1908-1950)	Bounded by W. Cushing Street, W. 18th Street, S. 11th Avenue, and S. Samaniego Avenue, Tucson, AZ	SHPO	18 acres, NRHP-listed in 2008, Criterion A as an early garden neighborhood along the Santa Cruz River, Criterion C for its collection of residential structures built from 1908 to 1950 in the Sonoran style



Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
8	Barrio El Membrillo Historic District	Historic neighborhood (1920s)	Bounded by W. Granada Street, W. Simpson Street, and right-of-way (ROW) of former El Paso and Southwestern Railroad corridor, Tucson, AZ	SHPO	5 acres, 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
9	El Paso and Southwestern Railroad District	Historic linear corridor (1913), with a depot, a roundhouse, a yard office building, a livestock exchange building, and four bridges	419 West Congress Street, Tucson, AZ	SHPO	48-acre corridor, including railroad grade, depot building and roundhouse; District was determined eligible under Criterion A for association with railroad transportation and mining; Depot was NRHP-listed in 2004, Criterion A (same as District) and Criterion C for its Classical Revival style.
10	Menlo Park Historic District	Historic neighborhood (1877-1964)	Bounded around intersection of Grande Avenue and W. Congress Street, Tucson, AZ	SHPO	221 acres, NRHP-listed 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



Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
11	Levi H. Manning House	Historic site (1908)	9 Paseo Redondo, Tucson, AZ (in El Presidio Historic District)	SHPO	1 acre, NRHP-listed in 1979, Criterion C for its combination of southwestern styles and association with former Tucson Mayor Levi Manning and architect Henry Trost
12	Barrio El Presidio Historic District	Historic neighborhood (1860-1920)	Bounded by W. 6th and W. Alameda Streets, and N. Stone and Granada Avenues, Tucson, AZ	SHPO	48 acres, NRHP-listed 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
14	Barrio Anita Historic District	Historic neighborhood (1903)	Bounded by W. Speedway Boulevard, Union Pacific Railroad, N. Granada Avenue, and St. Mary's Road	SHPO	54 acres, NRHP-listed, 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
15	Ronstadt-Sims Warehouse	Historic site (1920)	911 N. 13th Avenue, Tucson, AZ	SHPO	0.2 acre, NRHP-listed, 1989, Criterion A for agricultural association, Criterion C for post-railroad Sonoran style and engineering technology; non-contiguous contributor to John Spring Neighborhood District and John Spring Multiple Resource Area



Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
16	USDA Plant Materials Center	Historic site (1934)	3241 N. Romero Road, Tucson, AZ	SHPO	8 acres, NRHP-listed, 1997, Criterion A for its operation as a producer of nursery stock and seeds for regional soil stabilization and conservation projects
17	Cortaro Farms Canal/Cortaro- Marana Irrigation District Canal	Historic water conduit (1920)	Town of Marana, AZ	SHPO	14 acres, NRHP-eligible, Criterion A for its significant contribution to the expansion of irrigated agriculture in the region
Pinal County					
19	Picacho Pass Skirmish Site and Overland Mail Company Station	Historic battlefield and postal station (1858-1862)	Area around Picacho Peak, 1 mile northwest of I-10 Interchange 219	SHPO	724 acres, NRHP-listed, 2002, Criterion A for association with the Battle of Picacho Peak in 1862 and for one of the stations on the Butterfield Overland Mail Route; open land with interpretive monuments and markers, portion of old mail route road
Maricopa County					
20	Southern Pacific Railroad – Phoenix Mainline (Wellton-Phoenix- Eloy Spur (AZ T:10:84(ASM)))	Historic railroad (1926)	City of Buckeye, AZ	SHPO	205 miles, some segments are NRHP-eligible, Criterion A for its association with rail travel
21	Casa Grande Canal, AZ AA:3:209(ASM)	Historic site	Pinal County, AZ	SHPO	29 miles, NRHP-eligible, Criterion A for significance as water conduit



Table 4-2 Historic Sites Protected by Section 4(f) in the Project Corridors (Continued)

Property # on Figures	Property Name	Classification	Address/Location	Official(s) with Jurisdiction	Features/Attributes
22	Gila Bend Canal, AZ Z:2:66(ASM)	Multi-component site	Maricopa County, AZ	SHPO	35 miles, NRHP-eligible, Criterion A for significance as water conduit
23	Butterfield Overland Mail Stage Route (Gila Trail Archaeological Site (AZ T:15:32(ASM)))	Historic road (1858-1861)	Segment north of Mobile; segment northeast of Gila Bend in Maricopa Mountain Pass/Butterfield Pass	SHPO	25 miles, NRHP-eligible, Criterion A for significance as remaining roadway components of the historic Butterfield postal delivery route
24	Wide Trail Site, AZ T:14:28(ASM)	Prehistoric trail with prehistoric Hohokam and Patayan pottery	Maricopa County, AZ	SHPO	NRHP-eligible, Criterion A and Criterion D for significance as prehistoric trail and artifacts
25	Three prehistoric trails, AZ T:14:94(ASM)	Prehistoric trails and rock cairns with Hohokam and Patayan artifacts	Maricopa County, AZ	SHPO	NRHP-eligible, Criterion A and Criterion D for significance as prehistoric trails and artifacts
26	Prehistoric artifacts and canal, AZ T:10:59(ASM)	Prehistoric canal with Hohokam artifacts	Maricopa County, AZ	SHPO	NRHP-eligible, Criterion A and Criterion D for significance as prehistoric canal and artifacts
27	Buckeye Canal, AZ T:10:82(ASM)	Historic site	Maricopa County, AZ	SHPO	20 miles, NRHP-eligible, Criterion A for significance as water conduit
28	Roosevelt Canal, AZ T:10:83(ASM)	Historic site	City of Buckeye, Maricopa County, AZ	SHPO	45 miles, NRHP-eligible, Criterion A for significance as water conduit
Yavapai County					
	None found				

SOURCE: Archaeological Consulting Services and Ryden Architects 2017. *Cultural Resource Technical Report for the I-11 (Nogales to Wickenburg) Tier 1 EIS*.



4.4 Assessment of Use of Section 4(f) Properties

After identifying the Section 4(f) properties in the Study Area, FHWA determined whether and to what extent each Build Corridor Alternative has the potential to incorporate land from each property. To make this determination, protected properties were identified that are partially or entirely within one or more of the 2,000-foot-wide Build Corridor Alternatives.

Then FHWA examined the potential to implement the project within each Build Corridor Alternative without permanently incorporating land from each protected property. In this process, FHWA considered three methods to avoid permanently using each property. All three would apply professional engineering judgment and consideration of other natural and built environment opportunities and constraints and are described as follows:

- **Accommodate in the corridor** – Provide an alignment within the 2,000-foot-wide Build Corridor Alternative that avoids the protected property.
- **Shift the corridor** – Shift the 2,000-foot-wide Build Corridor Alternative away from the protected property to accommodate the project without using land from the protected property.
- **Grade-separate the corridor** – In the case of linear properties (such as trails, historic canals and historic railroads), and clusters of historic properties (such as the historic districts in Downtown Tucson), a 2,000-foot-wide Build Corridor Alternative would cross over or under the protected property (such as on an elevated structure or depressed roadway section) without using land from the protected property.

FHWA also determined that, for some properties in the Study Area, no use would occur. For all other properties protected by Section 4(f), the potential use of a protected property is evaluated by defining the type of use according to the definitions and criteria described in the Section 4(f) regulations (23 CFR 774 et seq.), as summarized in Section 4.2.2.

4.4.1 No Build Alternative

The No Build Alternative represents the existing transportation system, along with committed improvement projects that are programmed for funding. Within the Study Area, the 2018-2022 Five-Year Transportation Facilities Construction Program identified several capacity improvements programmed and funded for construction on the interstate and state highway system within the Study Area by 2022. The No Build Alternative includes new capacity (additional lanes) on I-10 between Tucson and Casa Grande and conversion of US 93 to a four-lane divided highway for a 3-mile segment through Wickenburg, as shown on **Figure 2-6** (No Build Alternative Capacity Improvements). Other improvements are programmed in the following locations:

- I-10: SR 85 to Verrado Way (Maricopa County)
- I-10: Ina Road to Ruthrauff Road (Pima County);
- I-10: SR 87 to Picacho (Pinal County);
- I-10: Earley Road to I-8 (Pinal County); and
- US 93: Tegner Drive to SR 89.



1 The No Build Alternative will avoid the use of Section 4(f) properties as part of I-11.

2 **4.4.2 Build Corridor Alternatives – No Use**

3 **4.4.2.1 Section 4(f) Properties Outside Build Corridor Alternatives (No Use)**

4 There are 81 properties that fall within the Study Area but outside of all of the 2,000-foot-wide
5 Build Corridor Alternatives. These properties would not be directly used under any alternative.

6 **Table 4-3** (Section 4(f) Properties Outside the Build Corridors) lists these properties.

Table 4-3 Section 4(f) Properties Outside the Build Corridors Where No Use Would Occur

Number on Figure 4-4	Property Name
Parks, Recreation Lands, Wildlife and Waterfowl Refuges	
2	Nogales Recreation Area and existing/planned critical habitat areas (portion of Coronado National Forest)
3	Tubac Presidio State Historic Park
4	Historic Hacienda de la Canoa (Raul M. Grijalva Canoa Ranch Conservation Park)
5	Canoa Preserve Park
6	Quail Creek Veterans Municipal Park
7	Parque Los Arroyos
9	Sahuarita Lake Park
10	North Santa Cruz Park
11	Summit Park
12	Star Valley Park
13	Lawrence Park
14	Mission Ridge Park
15	Ebonee Marie Moody Park
17	Mission Manor Park
18	CSM Martin “Gunny” Barreras Memorial Park (formerly Sunnyside Park)
19	Branding Iron Park
20	Oak Tree Park
21	Winston Reynolds – Manzanita District Park
24	Robles Pass at Tucson Mountain Park
26	Tucson Mountain Park
27	John F. Kennedy Park
28	St. John’s School Skate Park
32	Vista Del Pueblo Park
33	Ormsby Park
34	Ochoa Park



Table 4-3 Section 4(f) Properties Outside Build Corridors Where No Use Would Occur (Continued)

Number on Figure 4-4	Property Name
35	Santa Rita Park
36	Tumamoc Preserve
37	Sentinel Peak Park
38	Verdugo Park
39	Santa Rosa Park
40	Parque De Orlando Y Diego Mendoza
43	Rosendo S. Perez Park
44	La Pilita
45	El Tiradito Wishing Shrine
47	La Placita Park
48	Viente De Agosto Park
50	Sunset Park
51	El Presidio Park
52	Jacome Plaza
53	Christopher Franklin Carroll Centennial Park
54	Presidio San Augustin Del Tucson
55	Alene Dunlap Smith Garden
58	Greasewood Park
60	Feliz Paseos Park
61	Joachim Murrieta Park
63	Manuel Valenzuela Alvarez Park
64	Saguaro National Park
65	Juhan Park
66	Silverbell Golf Course
67	Jacobs Park
68	Sweetwater Preserve
70	Christopher Columbus Park
71	Flowing Wells Park
72	Dan Felix Memorial Park (formerly Peglar Wash Park)
73	Pima Prickly Park
75	Richardson Park
77	Ann Day Community Park (formerly Northwest Park)
78	Northwest YMCA Community Center
80	Denny Dunn Park
81	Crossroads at Silverbell District Park



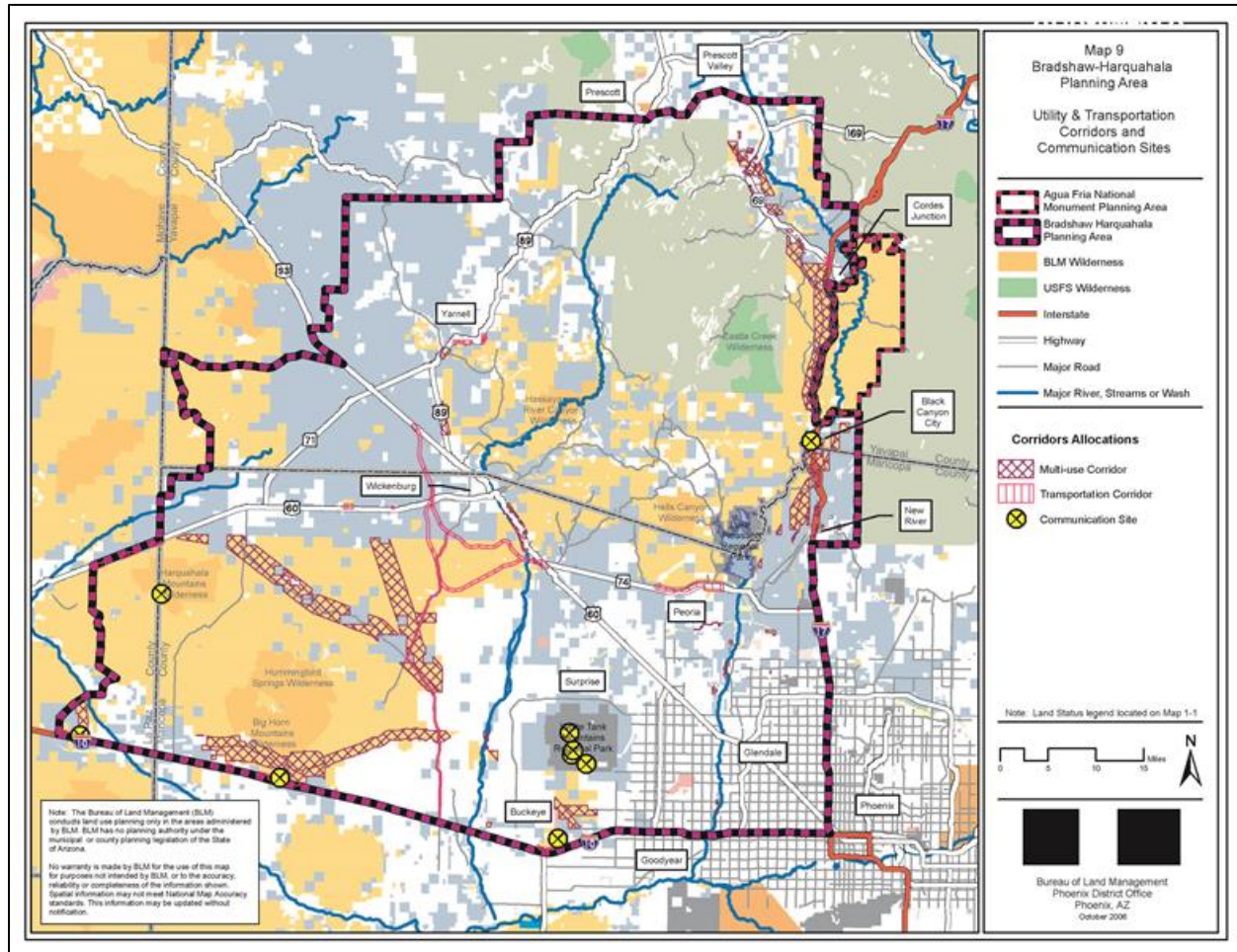
Table 4-3 Section 4(f) Properties Outside Build Corridors Where No Use Would Occur (Continued)

Number on Figure 4-4	Property Name
82	Continental Reserve Community Park
83	Sunset Pointe Park
84	El Rio Neighborhood Park
86	Santa Cruz River Park
87	Ora Mae Harn Park
88	Tortolita Preserve
89	San Lucas Community Park
90	Anza Park
94	Butterfield Pass Trail segment
95	Arlington Wildlife Area
96	Powers Butte Wildlife Area
99	Foothills Community Park
100	White Tank Mountain Regional Park
100a	Skyline Regional Park
101	Vulture Mountains RMZ
103	Wishing Well Park
104	Hassayampa River Walk
105	Coffinger Park
106	Constellation Park
Historic Sites	
38	Tumamoc Preserve
15	Ronstadt-Sims Warehouse
20	Southern Pacific Railroad – Phoenix Main Line (Wellton-Phoenix-Eloy Spur (AZ T:10:84(ASM)))

Among these properties is the BLM-owned Vulture Mountains RMZ. BLM is the official with jurisdiction over the property, which consists 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 Resource Management Plan (RMP) and the 2012 RMZ Plan. The RMP is relevant to I-11 because it identifies how and where activities can occur on the Vulture Mountains RMZ property; the RMZ is relevant to I-11 because it provides the framework for implementing activities. The relevant aspects of each plan are briefly described as follows:

- Bradshaw-Harquahala RMP** – The RMP provides guidance to the Hassayampa Field Office of the BLM regarding current and future management decisions for Vulture Mountains RMZ. 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 RMZ property (**Figure 4-5** [Bradshaw-Harquahala Planning Area Map]). Multi-use corridors are defined in the RMP as

- 1 being for major utilities and regionally significant transportation uses. The RMP specifies
2 that BLM will coordinate with ADOT in advancing such transportation uses in multi-use
3 corridors.
- 4 FHWA has determined on the basis of the RMP that Section 4(f) does not apply to the multi-use
5 corridor that crosses the Vulture Mountains RMZ because the purpose of the multi-use corridor
6 is to co-locate utilities and transportation infrastructure (**Figure 4-6** [Build Corridor Alternatives
7 near Vulture Mountains RMZ]). BLM concurred with FHWA's determination on April 30, 2018
8 (**Appendix F**).



SOURCE: BLM, *Agua Fria National Monument and Bradshaw-Harquahala Resource Management Plan/Record of Decision*. April 22, 2010.

Figure 4-5 Bradshaw-Harquahala Planning Area Map

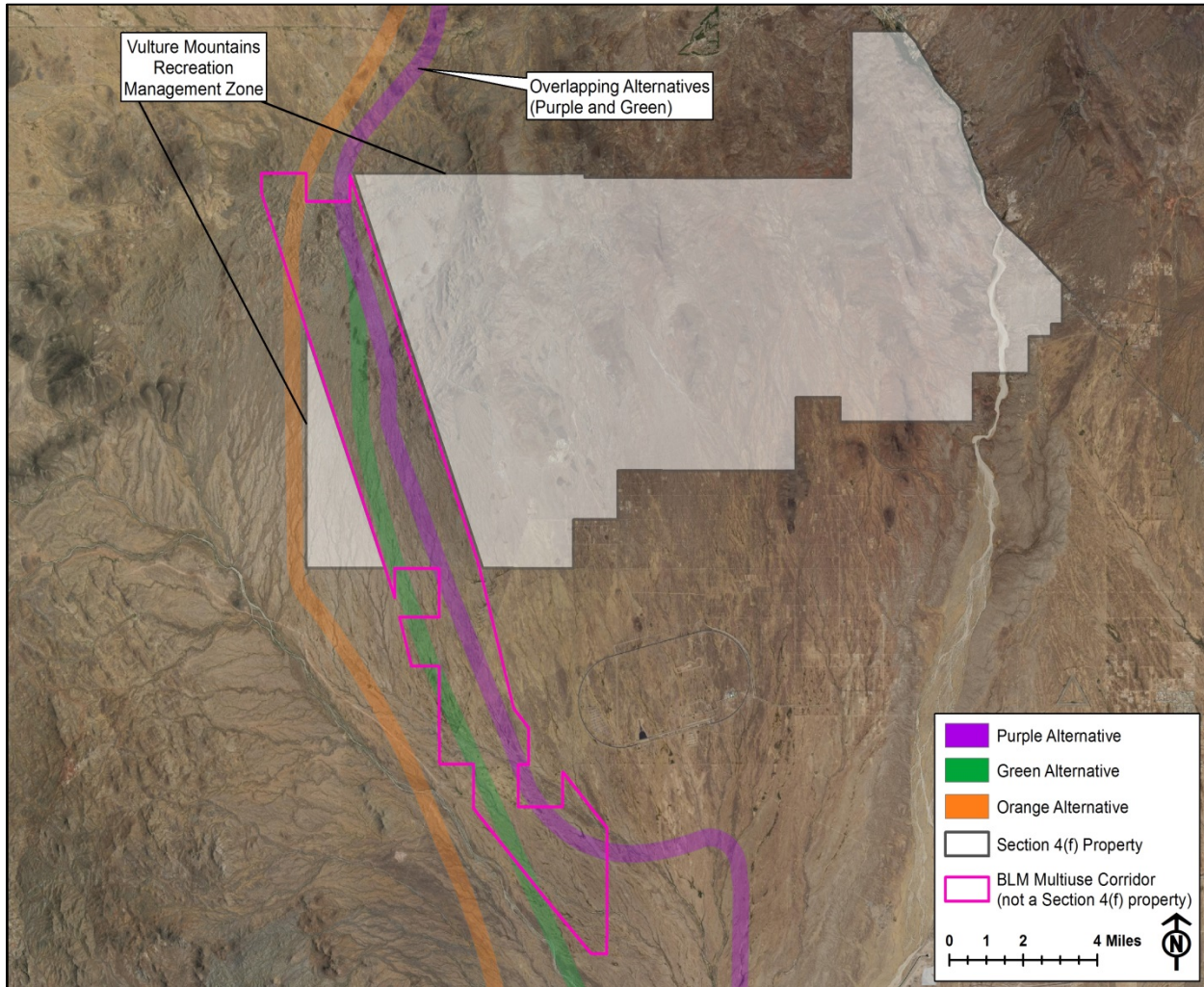


Figure 4-6 Build Corridor Alternatives near Vulture Mountains RMZ



FHWA, ADOT, and BLM initiated coordination regarding Vulture Mountains RMZ during scoping for I-11. During development and evaluation of the alternative corridors, FHWA and ADOT continued to coordinate with BLM in regard to Vulture Mountains RMZ. In this coordination, corridor alignments inside and outside the multi-use corridor were discussed. The BLM discouraged alignments across the property and outside the multi-use corridor, noting the mission of the property to protect natural resources and provide recreation opportunities (see **Table 4-7** [Summary of Comments from Officials with Jurisdiction over Section 4(f) Properties] [located at the end of this chapter] and **Appendix F**).

Through coordination with BLM, FHWA and ADOT developed Options X and U, Corridor Options that would be located within the multi-use corridor across the Vulture Mountains RMZ property. Options X and U, when applied to the Purple and Green Alternatives, would provide the opportunity for these alternatives to avoid a use of the Vulture Mountains RMZ. In addition, and consistent with 23 CFR 774.7(e)(1), opportunities to minimize harm to the property at subsequent stages in the project development process (for example, Tier 2), are not precluded. At this preliminary level of planning, FHWA and ADOT have identified no engineering or environmental constraints that would obstruct or preclude the ability to provide a highway alignment that achieves general engineering design standards in the multi-use corridor. As a result of being able to avoid Vulture Mountains RMZ, no use of the property as defined by Section 4(f) would occur as a result of I-11.

The Orange Alternative (Option S) would be aligned west of and adjacent to the Vulture Mountains RMZ property such that no use of the Vulture Mountains RMZ property would occur. The BLM has stated its preference for Option S in its April 30, 2018, letter to FHWA (**Appendix F**). Consistent with 23 CFR 774.7(e)(1), opportunities to minimize harm to the property at subsequent stages in the project development process (for example, Tier 2), are not precluded. At this preliminary level of planning, FHWA and ADOT have identified no engineering or environmental constraints that would obstruct or preclude the ability to provide a highway alignment that achieves general engineering design standards west of and adjacent to the Vulture Mountains RMZ property.

4.4.2.2 Section 4(f) Properties in Build Corridors

There are 42 properties partially or entirely within one or more Build Corridor Alternatives. **Table 4-4** (Section 4(f) Properties within the Build Corridors) lists these properties and identifies the applicable corridor(s). The acreage of each property in a corridor is quantified along with the percentage of the total property in the corridor. **Figure 4-7** (Section 4(f) Properties in Build Corridor Alternatives – South Section), **Figure 4-8** (Section 4(f) Properties in Build Corridor Alternatives – Central Section), and **Figure 4-9** (Section 4(f) Properties in Build Corridor Alternatives – North Section) show the locations of the properties in relation to the Build Corridors.



Table 4-4 Section 4(f) Properties within the Build Corridors (Potential Use)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles [%])			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
Parks, Recreation Areas, and Wildlife and Waterfowl Areas						
Multiple Counties						
1	Juan Bautista de Anza National Historic Trail	5 miles (13%)	12 miles (30%)	24 miles (60%)	40 miles in segments	Crosses corridors (Purple, Green, and Orange)
Pima County						
8	Anamax Park	0	37 acres (88%)	33 acres (79%)	42 acres	Mostly in corridors (Green and Orange)
16	Pima Community College, Desert Vista Campus	0	0	5 acres (100%)	5	In corridor (Orange)
22	TMC	453 acres ⁽¹⁾ (15%)	453 acres ⁽¹⁾ (15%)	0	2,958	Partly in corridors (Purple and Green)
23	Santa Cruz River Park	0	0	131 acres (29%)	459 acres	In corridor (Orange)
25	La Mar Park	0	0	3 acres (100%)	3	In corridor (Orange)
29	Julian Wash Greenway	0	0	0.58 mile (4%)	14 miles	Partly in corridor (Orange)
30	Julian Wash Archaeological Park	0	0	15.8 (97%)	16.2	Mostly in corridor (Orange)
31	El Paso and Southwestern Greenway (Planned Trail)	0	0	3 miles (75%)	4 miles	Crosses corridor (Orange)
41	El Paso and Southwestern Greenway (Existing Trail)	0	0	0.2 mile (100%)	0.2 mile	Crosses corridor (Orange)



Table 4-4 Section 4(f) Properties within Build Corridors (Potential Use) (Continued)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles (%))			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
42	El Parque De San Cosme	0	0	1 acre (100%)	1	In corridor (Orange)
46	Garden of Gethsemane	0	0	1.3 acres (100%)	1.3	In corridor (Orange)
49	Bonita Park	0	0	1.4 acres (100%)	1.4	All within corridor (Orange)
56, 57	David G. Herrera and Ramon Quiroz Park (formerly Oury Park)	0	0	7 acres (100%)	7 acres	In corridor (Orange)
59	Estevan Park	0	0	2.3 acres (28%)	8	Partly in corridor (Orange)
62	Francesco Elias Esquer Park	0	0	0.9 acre (14%)	6	Partly in corridor (Orange)
69	Sweetwater Wetlands Park	0	0	0.9 acre (2%)	58	Partly in corridor (Orange)
74	Rillito River Park	0	0	5 (83%)	6	Mostly in corridor (Orange)
76	Ted Walker Park	0	0	42 acres (69%)	61	Partly in corridor (Orange)
79	Canada Del Oro Christine Taylor Green Memorial River Park	0	0	1.5 (6%)	26	Partly in corridor (Orange)
85	Rillito Vista Park	0	0	2 acres (100%)	2	In corridor (Orange)



Table 4-4 Section 4(f) Properties within Build Corridors (Potential Use) (Continued)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles (%))			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
89	San Lucas Community Park	0	0	5 acres (36%)	14	Partly in corridor (Orange)
Pinal County						
91	Picacho Peak State Park	173 acres (5%)	0	173 acres (5%)	3,747 acres	Partly in corridors (Purple and Orange)
92	Pinal County West/Kortsen Park	0	0	48 acres (30%)	160 acres	Partly in corridor (Orange)
93	Palo Verde Regional Park (Pinal County Parks)	305 acres (1%)	305 acres (1%)	427 acres (2%)	22,810 acres for recreation	Partly in corridors (Purple, Green, and Orange)
Maricopa County						
99	Buckeye Hills Regional Park	0	184 acres (4%)	345 acres (7%)	4,648 acres	Partly in corridors (Green and Orange)
98	Robbins Butte Wildlife Area	0	0, or minimal	0, or minimal	5,676	Green and Orange Alternatives can likely be accommodated within existing SR 85 ROW
98a	PLO 1015 Lands and adjacent AGFD Parcels	42 acres (0.6 %)	32 acres (0.5 acres)	32 acres (0.5 acres)	6,906 acres	Green or Orange Alternatives can likely be accommodated within existing SR 85 ROW; Purple is a new crossing



Table 4-4 Section 4(f) Properties within Build Corridors (Potential Use) (Continued)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles (%))			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
Historic Sites						
Multiple Counties						
13	Southern Pacific Railroad – Phoenix Mainline (Wellton-Phoenix-Eloy Spur (AZ T:10:84(ASM)))	10 miles (4%)	10 miles (4%)	10 miles (4%)	250	Crosses corridors (Purple, Green, and Orange)
18	Arizona Southern Railroad Company – railroad grade AZ AA:10:19(ASM)	1 mile (6%)	0.4 mile (2%)	1 mile (6%)	17	Crosses corridors (Purple, Green, and Orange)
Santa Cruz County						
1	New Mexico-Arizona Railroad: Nogales Branch, AZ EE:4:43(ASM)	0	0	4 acres (100%)	4	In corridor (Orange)
2	Otero Cemetery, near Palo Parado interchange, AZ DD:8:165(ASM)	0.2 acre (100%)	0.2 acres (100%)	0.2 acre (100%)	0.2	In corridors (Purple, Green, and Orange)
3, 4	Tumacacori National Monument and Museum (National Historical Park)	4 acres (1%)	4 acres (1%)	4 acres (1%)	360 acres	Partly in corridors (Purple, Green, and Orange)



Table 4-4 Section 4(f) Properties within Build Corridors (Potential Use) (Continued)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles (%))			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
Pima County						
5	Canoa Ranch Rural Historic District (Hacienda de la Canoa, Raul M. Grijalva Canoa Ranch Conservation Park and Canoa Ranch Rural Historic District)	0	422 acres (9%)	422 acres (9%)	4,700	Partly in corridors (Green and Orange)
6	Agustin del Tucson Mission site, AZ BB:13:6(ASM)	0	0	6.2 acres (3%)	194	Partly in corridor (Orange)
7	Barrio El Hoyo Historic District	0	0	8 acres (44%)	18	Partly in corridor (Orange)
8	Barrio El Membrillo Historic District	0	0	5 acres (100%)	5	In corridor (Orange)
9	El Paso and Southwestern Railroad District	0	0	42 acres (88%)	48	In corridor (Orange)
10	Menlo Park Historic District	0	0	3 acres (1%)	221	Partly in corridor (Orange)
11	Levi H. Manning House	0	0	3 acres (100%)	3	In corridor (Orange)
12	Barrio El Presidio Historic District	0	0	3 acres (6%)	48	Partly in corridor (Orange)
14	Barrio Anita Historic District	0	0	46 acres (85%)	54	Partly in corridor (Orange)



Table 4-4 Section 4(f) Properties within Build Corridors (Potential Use) (Continued)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles (%))			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
16	USDA Plant Materials Center	0	0	6 acres (75%)	8	Partly in corridor (Orange)
17	Cortaro Farms/Cortaro-Marana Irrigation District Canal	0.2 mile (1%)	0	12 miles (86%)	14	Crosses corridor (Purple); partly within corridor (Orange)
Pinal County						
19	Picacho Pass Skirmish Site and Overland Mail Company Station	35 acres (5%)	0	35 acres (5%)	724	Partly in corridors (Purple and Orange)
Maricopa County						
21	Casa Grande Canal, AZ AA:3:209(ASM)	1 mile (3%)	1 mile (3%)	1 mile (3%)	29	Crosses corridors (Purple, Green, and Orange)
22	Gila Bend Canal, AZ Z:2:66(ASM)	0	0	0.2 mile ($<1\%$)	35	Crosses corridor (Orange)
23	Butterfield Overland Mail Stage Route (Gila Trail Archaeological Site (AZ T:15:32(ASM)))	0.4 mile (2%)	0.4 miles (2%)	0.4 mile (2%)	25	Crosses corridors (Purple, Green, and Orange)
24	Wide Trail Site, AZ T:14:28(ASM)	0	0	6.8 acres (98%)	6.9	Mostly in corridor (Orange)
25	Three prehistoric trails, AZ T:14:94(ASM)	0	0	3.2 acres (100%)	3.2	In corridor (Orange)
26	Prehistoric artifacts and canal, AZ T:10:59(ASM)	0	1.7 acres (30%)	1.7 acres (30%)	5.6	Partly in corridors (Green and Orange)



Table 4-4 Section 4(f) Properties within Build Corridors (Potential Use) (Continued)

Map #	Property Name	Property Area/Percentage Inside Corridor (acres or miles (%))			Existing Property Acreage (miles for trails/green ways)	Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative		
27	Buckeye Canal, AZ T:10:82(ASM)	1 mile (6%)	1 mile (6%)	0.4 mile (2%)	20	Crosses corridors (Purple, Green, and Orange)
28	Roosevelt Canal, AZ T:10:83(ASM)	0	0	0.4 mile (1%)	45	Crosses corridor (Orange)
Numbers of Properties:						
Total Properties partly or entirely within each corridor		7	10	41		
Total corridor crossings of properties (trails, canals and railroads)		7	6	11		

SOURCE: AECOM 2017.

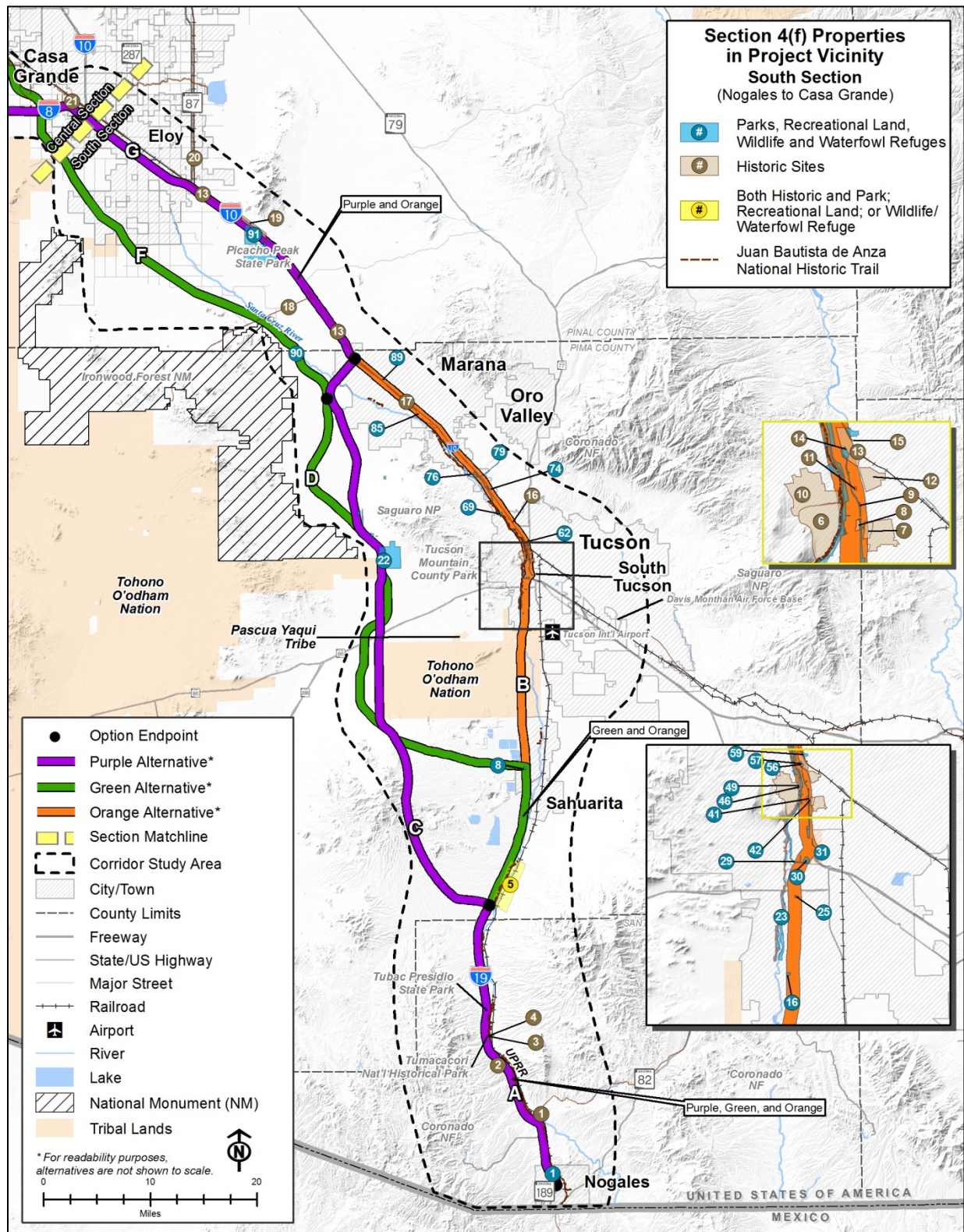


Figure 4-7 Section 4(f) Properties in Build Corridor Alternatives – South Section

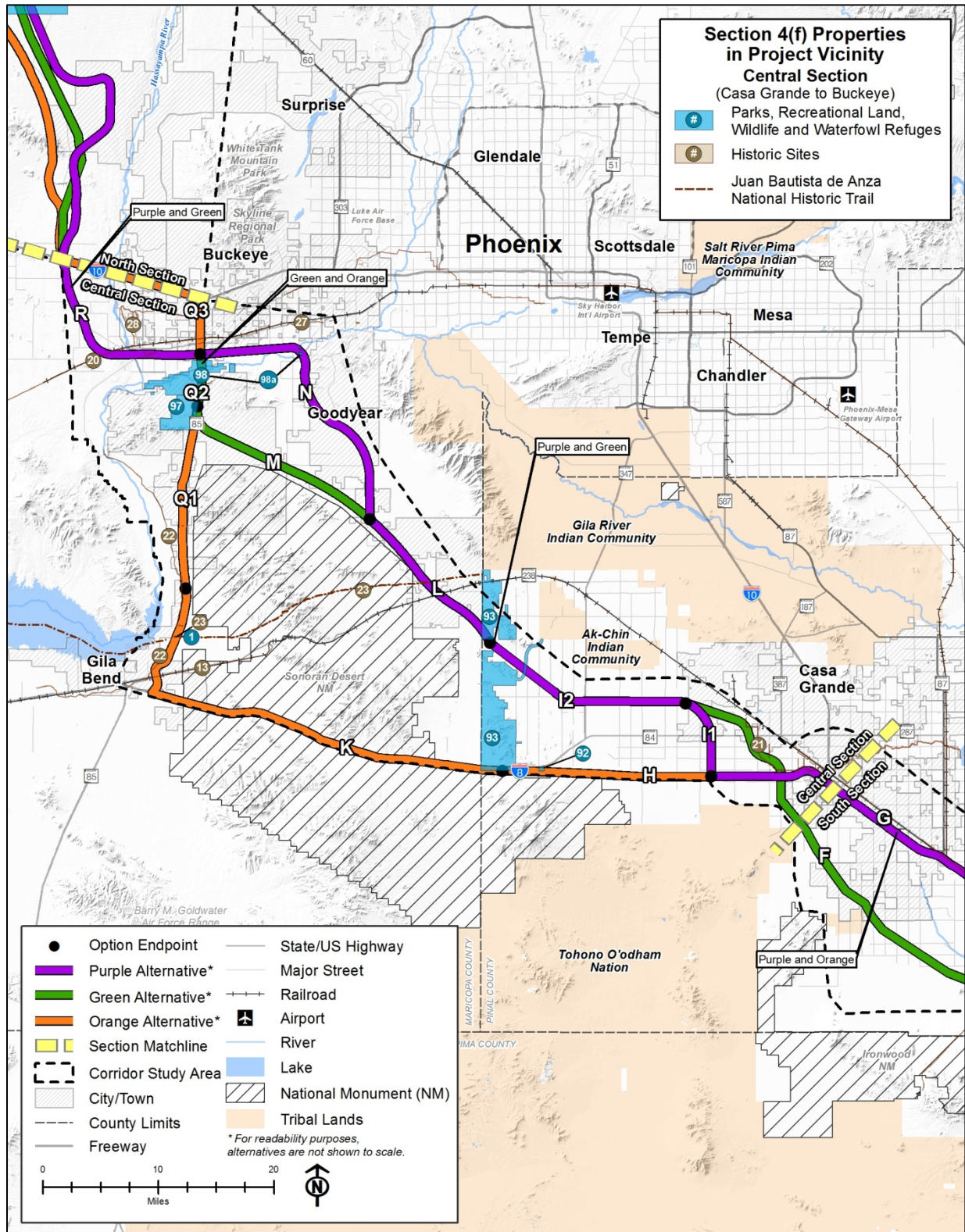


Figure 4-8 Section 4(f) Properties in Build Corridor Alternatives – Central Section

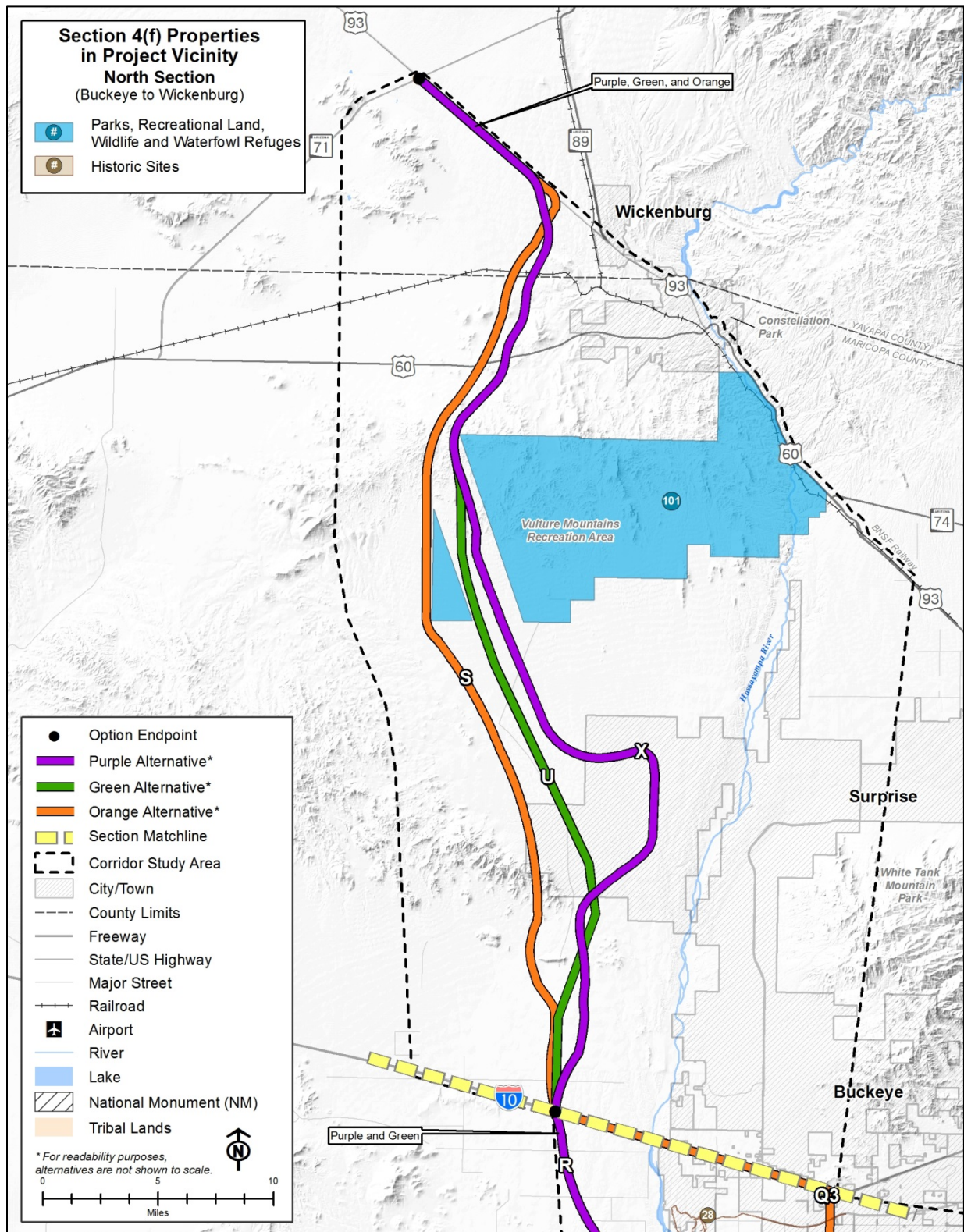


Figure 4-9 Section 4(f) Properties in Build Corridor Alternatives – North Section



The potential for use of Section 4(f) properties prompted FHWA and ADOT to assess whether, in the context of professional engineering judgment and the findings of the Draft Tier 1 EIS, permanent incorporation of land from the protected property can be avoided by alignment shifts and design changes described in this section.² This assessment was performed in accordance with the regulations of Section 4(f) regarding first-tier analysis (23 CFR 774.7(e)(1)). Specifically, FHWA and ADOT “applied all possible planning to minimize harm to the extent that the level of detail available at the first-tier EIS stage allows” in order for a preliminary Section 4(f) approval to be made.

In this assessment, FHWA and ADOT evaluated the following three methods to avoid Section 4(f) properties:

- **Accommodate in the corridor** – For properties partially or entirely within a Build Corridor Alternative, provide space for an approximately 400-foot-wide linear roadway ROW within the 2,000-foot-wide Build Corridor Alternative while avoiding the protected property.
- **Shift the corridor** – For properties that cannot be avoided by the previous method, shift the 2,000-foot-wide Build Corridor Alternative away from the protected property in order to accommodate the project and avoid the protected property.
- **Grade-separate the corridor** – In the case of linear properties (such as trails, historic canals and historic railroads) that are within a 2,000-foot-wide Build Corridor Alternative, the corridor would cross over or under the protected property (such as on an elevated structure or depressed roadway section) to avoid the protected property.

The results of this evaluation are summarized in **Table 4-5** (Summary of Use by Build Corridor Alternatives) and are described in the subsections that follow the table. During Tier 2 studies, the 2,000-foot width of a selected Build Corridor Alternative would be refined to a specific roadway alignment. At that time, the commitments made in this Draft Preliminary Section 4(f) Evaluation (such as accommodate in the corridor, shift the corridor, and grade-separate the corridor) would be included in the alignment design. Potential impacts identified in this Draft Preliminary Section 4(f) Evaluation may be avoided or minimized when a specific roadway alignment is identified. At that time, the Section 4(f) Evaluations will analyze the specific roadway alignment for potential uses of Section 4(f)-protected properties including historic sites determined to be eligible during the Section 106 process.

The Section 4(f) properties listed in **Table 4-5** (Summary of Use by Build Corridor Alternatives) that are to be avoided may be impacted if additional Section 4(f) properties area discovered during the Tier 2 process.

² An alignment shift is the rerouting of a portion of I-11 to a different alignment within the 2,000-foot-wide corridor to avoid the potential use of a specific property. A design change is a modification of the proposed design in a manner that would avoid impacts.



Table 4-5 Summary of Use by Build Corridor Alternatives

Map #	Property Name	Summary of Use Findings			Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative	
Parks, Recreation Areas, and Wildlife and Waterfowl Areas					
Multiple Counties					
1	Juan Bautista de Anza National Historic Trail	No use – grade-separate	No use – grade-separate	No use – grade-separate	Crosses corridors (Purple, Green, and Orange)
Pima County					
8	Anamax Park	No use – outside corridor	No use – shift corridor	No use – shift corridor	Mostly in corridors (Green and Orange)
16	Pima Community College, Desert Vista Campus	No use – outside corridor	No use – outside corridor	No use – accommodate	In corridor (Orange)
22	TMC	Use – net benefit	Use – net benefit	No use – outside corridor	Partly in corridors (Purple and Green)
23	Santa Cruz River Park	No use – outside corridor	No use – outside corridor	Potential use	In corridor (Orange)
25	La Mar Park	No use – outside corridor	No use – outside corridor	No use – accommodate	In corridor (Orange)
29	Julian Wash Greenway	No use – outside corridor	No use – outside corridor	No use – grade-separate	Partly in corridor (Orange)
30	Julian Wash Archaeological Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Mostly in corridor (Orange)
31	El Paso and Southwestern Greenway (Planned Trail)	No use – outside corridor	No use – outside corridor	No use – grade-separate	Crosses corridor (Orange)
41	El Paso and Southwestern Greenway (Existing Trail)	No use – outside corridor	No use – outside corridor	Potential use	Crosses corridor (Orange)



Table 4-5 Summary of Use by Build Corridor Alternatives (Continued)

Map #	Property Name	Summary of Use Findings			Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative	
42	El Parque De San Cosme	No use – outside corridor	No use – outside corridor	No use- accommodate	In corridor (Orange)
46	Garden of Gethsemane	No use – outside corridor	No use – outside corridor	No use- accommodate	In corridor (Orange)
49	Bonita Park	No use – outside corridor	No use – outside corridor	No use - accommodate	All within corridor (Orange)
56, 57	David G. Herrera and Ramon Quiroz Park (formerly Oury Park)	No use – outside corridor	No use – outside corridor	Potential use	In corridor (Orange)
59	Estevan Park	No use – outside corridor	No use – outside corridor	No use- accommodate	Partly in corridor (Orange)
62	Francesco Elias Esquer Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
69	Sweetwater Wetlands Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
74	Rillito River Park	No use – outside corridor	No use – outside corridor	No use – accommodate; grade-separate	Mostly in corridor (Orange)
76	Ted Walker Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
79	Canada Del Oro Christine Taylor Green Memorial River Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
85	Rillito Vista Park	No use – outside corridor	No use – outside corridor	No use – accommodate	In corridor (Orange)
89	San Lucas Community Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)



Table 4-5 Summary of Use by Build Corridor Alternatives (Continued)

Map #	Property Name	Summary of Use Findings			Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative	
Pinal County					
91	Picacho Peak State Park	No use – accommodate	No use – outside corridor	No use – accommodate	Partly in corridors (Purple and Orange)
92	Pinal County West/Kortsen Park	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
93	Palo Verde Regional Park (Pinal County Parks)	No use – shift corridor; grade separate	No use – shift corridor; grade separate	No use – accommodate	Partly in corridors (Purple, Green, and Orange)
Maricopa County					
97	Buckeye Hills Regional Park	No use – outside corridor	No use – accommodate	No use – accommodate	Partly in corridors (Green and Orange)
98	Robbins Butte Wildlife Area	No use – outside corridor	No use, or possible <i>de minimis</i> use	No use, or possible <i>de minimis</i> use	Green and Orange Alternatives can likely be accommodated within the existing SR 85 right-of-way (ROW)
98a	PLO 1015 lands and adjacent AGFD Parcels	No use - accommodate	No use – accommodate	No use – accommodate	Partly in corridors (Purple, Green, or Orange)
Historic Sites					
Multiple Counties					
13	Southern Pacific Railroad – Phoenix Mainline (Wellton-Phoenix-Eloy Spur (AZ T:10:84(ASM)))	No use – grade-separate	No use – grade-separate	No use – grade-separate	Crosses corridors (Purple, Green, and Orange)
18	Arizona Southern Railroad Company – railroad grade AZ AA:10:19(ASM)	No use – grade-separate	No use – grade-separate	No use – grade-separate	Crosses corridors (Purple, Green, and Orange)



Table 4-5 Summary of Use by Build Corridor Alternatives (Continued)

Map #	Property Name	Summary of Use Findings			Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative	
Santa Cruz County					
1	New Mexico-Arizona Railroad: Nogales Branch, AZ EE:4:43(ASM)	No use – outside corridor	No use – outside corridor	No use – grade-separate	Crosses corridor (Orange)
2	Otero Cemetery, near Palo Parado interchange, AZ DD:8:165(ASM)	No use – accommodate	No use – accommodate	No use – accommodate	In corridors (Purple, Green, and Orange)
3, 4	Tumacacori National Monument and Museum (National Historical Park)	No use – accommodate	No use – accommodate	No use – accommodate	Partly in corridors (Purple, Green, and Orange)
Pima County					
5	Canoa Ranch Rural Historic District (Hacienda de la Canoa, Raul M. Grijalva Canoa Ranch Conservation Park and Canoa Ranch Rural Historic District)	No use – outside corridor	No use – accommodate	No use – accommodate	Partly in corridors (Green and Orange)
6	Agustin del Tucson Mission site, AZ BB:13:6(ASM)	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
7	Barrio El Hoyo Historic District	No use – outside corridor	No use – outside corridor	No use-accommodate	Partly in corridor (Orange)
8	Barrio El Membrillo Historic District	No use – outside corridor	No use – outside corridor	Potential use	In corridor (Orange)
9	El Paso and Southwestern Railroad District	No use – outside corridor	No use – outside corridor	Potential use	In corridor (Orange)



Table 4-5 Summary of Use by Build Corridor Alternatives (Continued)

Map #	Property Name	Summary of Use Findings			Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative	
10	Menlo Park Historic District	No use – outside corridor	No use – outside corridor	No use - accommodate	Partly in corridor (Orange)
11	Levi H. Manning House	No use – outside corridor	No use – outside corridor	Potential use	In corridor (Orange)
12	Barrio El Presidio Historic District	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
14	Barrio Anita Historic District	No use – outside corridor	No use – outside corridor	Potential use	Partly in corridor (Orange)
16	USDA Plant Materials Center	No use – outside corridor	No use – outside corridor	No use – accommodate	Partly in corridor (Orange)
17	Cortaro Farms/Cortaro-Marana Irrigation District Canal	No use – grade-separate	No use – outside corridor	No use – grade-separate	Crosses corridor (Purple); partly within corridor (Orange)
Pinal County					
19	Picacho Pass Skirmish Site and Overland Mail Company Station	No use – accommodate	No use – outside corridor	No use – accommodate	Partly in corridors (Purple and Orange)
Maricopa County					
21	Casa Grande Canal, AZ AA:3:209(ASM)	No use – grade-separate	No use – grade-separate	No use – grade-separate	Crosses corridors (Purple, Green, and Orange)
22	Gila Bend Canal, AZ Z:2:66(ASM)	No use – outside corridor	No use – outside corridor	No use – grade-separate	Crosses corridor (Orange)
23	Butterfield Overland Mail Stage Route (Gila Trail Archaeological Site (AZ T:15:32(ASM)))	No use – grade-separate	No use – grade-separate	No use – grade-separate	Crosses corridors (Purple, Green, and Orange)



Table 4-5 Summary of Use by Build Corridor Alternatives (Continued)

Map #	Property Name	Summary of Use Findings			Applicable Corridor
		Purple Alternative	Green Alternative	Orange Alternative	
24	Wide Trail Site, AZ T:14:28(ASM)	No use – outside corridor	No use – outside corridor	No use – accommodate	Mostly in corridor (Orange)
25	Three prehistoric trails, AZ T:14:94(ASM)	No use – outside corridor	No use – outside corridor	No use – accommodate	In corridor (Orange)
26	Prehistoric artifacts and canal, AZ T:10:59(ASM)	No use – outside corridor	No use – accommodate	No use – accommodate	Partly in corridors (Green and Orange)
27	Buckeye Canal, AZ T:10:82(ASM)	No use – grade-separate	No use – grade-separate	No use – grade-separate	Crosses corridors (Purple, Green, and Orange)
28	Roosevelt Canal, AZ T:10:83(ASM)	No use – outside corridor	No use – outside corridor	No use – grade-separate	Crosses corridor (Orange)
Numbers of Properties:					
No use		53	51	45	
Use – Net Benefit		1	1	0	
Potential Use (including possible De Minimis)		0	1	8	

NOTES:

Accommodate in the corridor – Provide space for a minimum of a 400-foot-wide linear roadway ROW within the 2,000-foot-wide Build Corridor Alternative while avoiding the protected property.

Shift the corridor – Shift the 2,000-foot-wide Build Corridor Alternative away from the protected property in order to accommodate the project and avoid the protected property.

Grade-separate the corridor – The corridor would cross over or under the protected property (such as on an elevated structure or depressed roadway section) to avoid the protected property.

Net benefit – Preserve and enhance the features, functions and values of the property.

SOURCE: AECOM 2017.



4.4.2.3 Accommodate in the Corridor

For Section 4(f) properties that occur partially or entirely within a Build Corridor Alternative, as indicated in **Table 4-5** (Summary of Use by Build Corridor Alternatives), FHWA examined the corridor in the area of each of these properties and evaluated the:

- Type, configuration and extent of the property within the corridor;
- General highway design requirements that would apply to I-11, including allowance for a 400-foot ROW width; and
- Other, non-Section 4(f) opportunities and constraints in the property area that were identified by the Draft Tier 1 EIS.

This assessment determined that 53 Section 4(f) properties can be accommodated in the Purple Alternative; 51 properties can be accommodated in the Green Alternative; and 45 properties can be accommodated in the Orange Alternative. For each property, FHWA identified the opportunity during Tier 2 studies to accommodate a 400-foot-wide ROW for I-11 within each Build Corridor Alternative while avoiding the Section 4(f) property that occurs within the corridor (**Table 4-5** [Summary of Use by Build Corridor Alternatives]). The appropriateness and compatibility of avoiding each Section 4(f) property by the future Project design would be evaluated and determined during Tier 2 studies in coordination with the officials with jurisdiction. Consistent with 23 CFR 774.7(e)(1), opportunities to minimize harm to the property at subsequent stages in the project development process (for example, Tier 2) are not precluded by this Tier 1 evaluation. Based on this Draft Preliminary Section 4(f) Evaluation, the land area occupied by each property and other environmental constraints would not obstruct or preclude the ability to provide a highway alignment that achieves general engineering design standards in the portion of the corridor outside the boundaries of the properties. As a result of the ability to avoid these properties, FHWA commits that no use of the accommodated properties as defined by Section 4(f) would occur as a result of I-11. **Figures 4-10** through **4-26** show each Section 4(f) property that can be avoided through accommodation in a Build Corridor Alternative.³

³ Archaeological sites are not included in the graphics because that information is confidential in order to protect the sites.

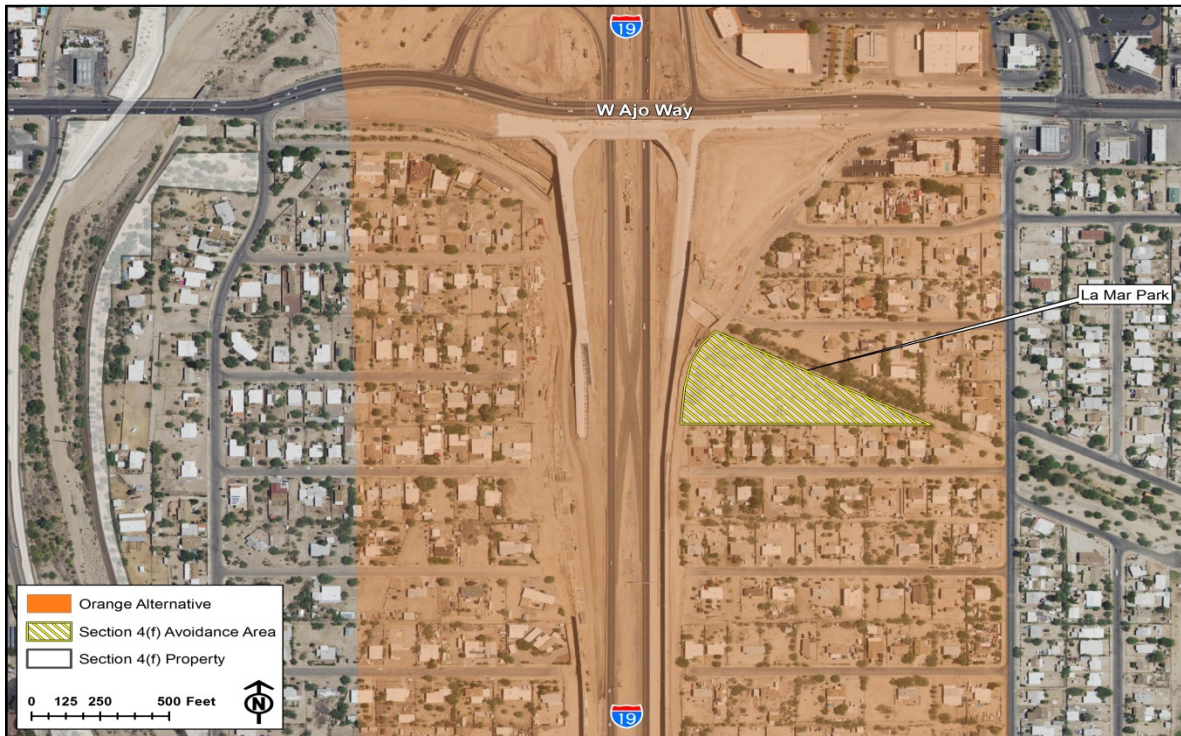


Figure 4-10 La Mar Park – Orange Alternative (Accommodate in the Corridor)

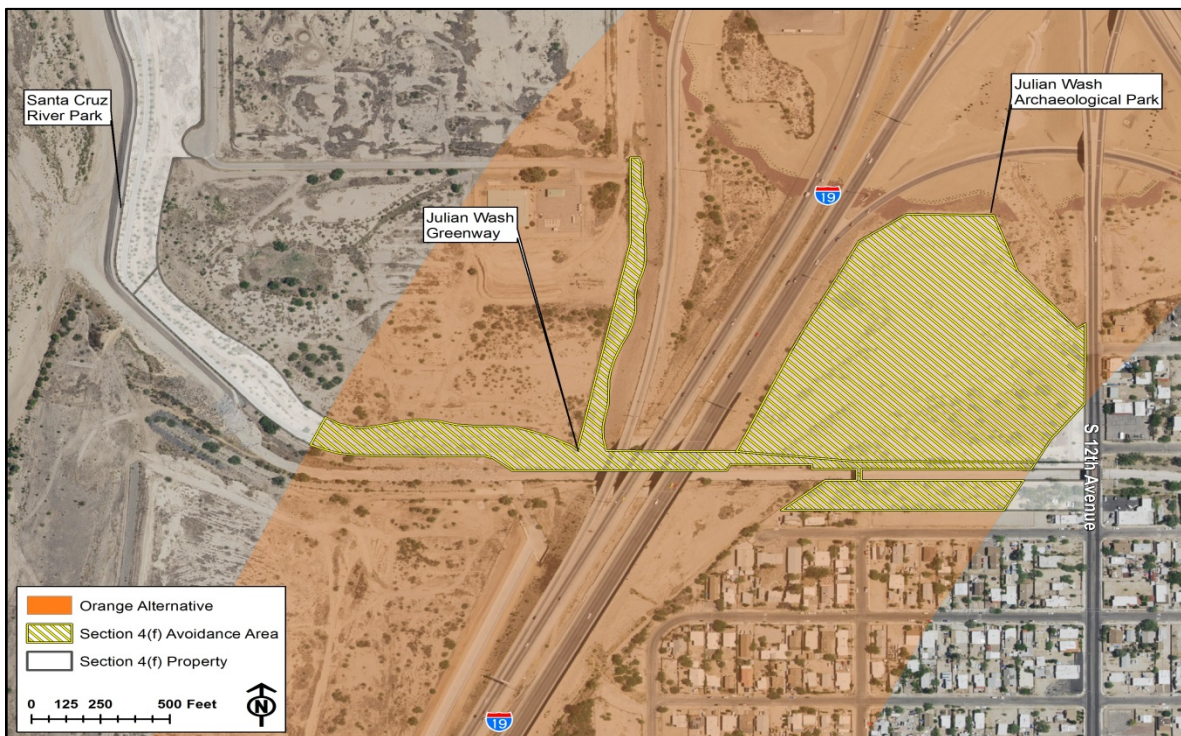


Figure 4-11 Julian Wash Greenway and Archaeological Park – Orange Alternative (Accommodate in the Corridor)



Figure 4-12 Francisco Elias Esquer Park – Orange Alternative (Accommodate in the Corridor)



Figure 4-13 Sweetwater Wetlands Park and US Department of Agriculture Plant Materials Center – Orange Alternative (Accommodate in the Corridor)

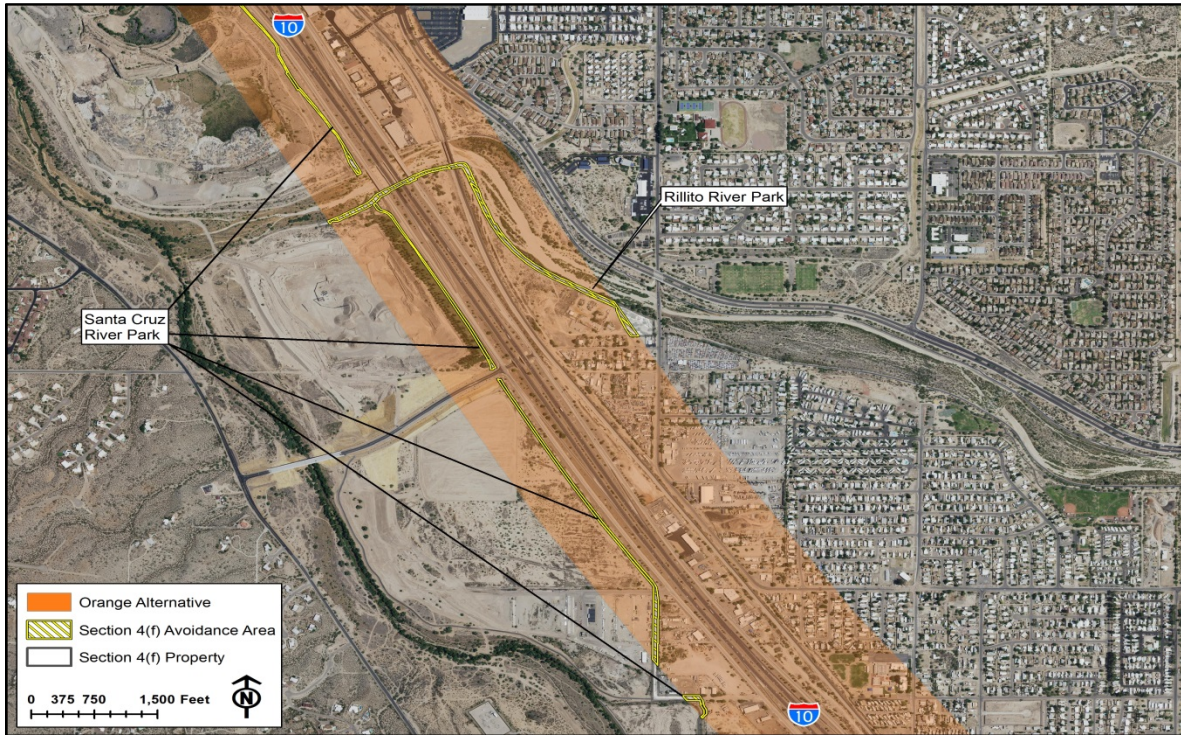


Figure 4-14 Rillito River Park – Orange Alternative (Accommodate in the Corridor)

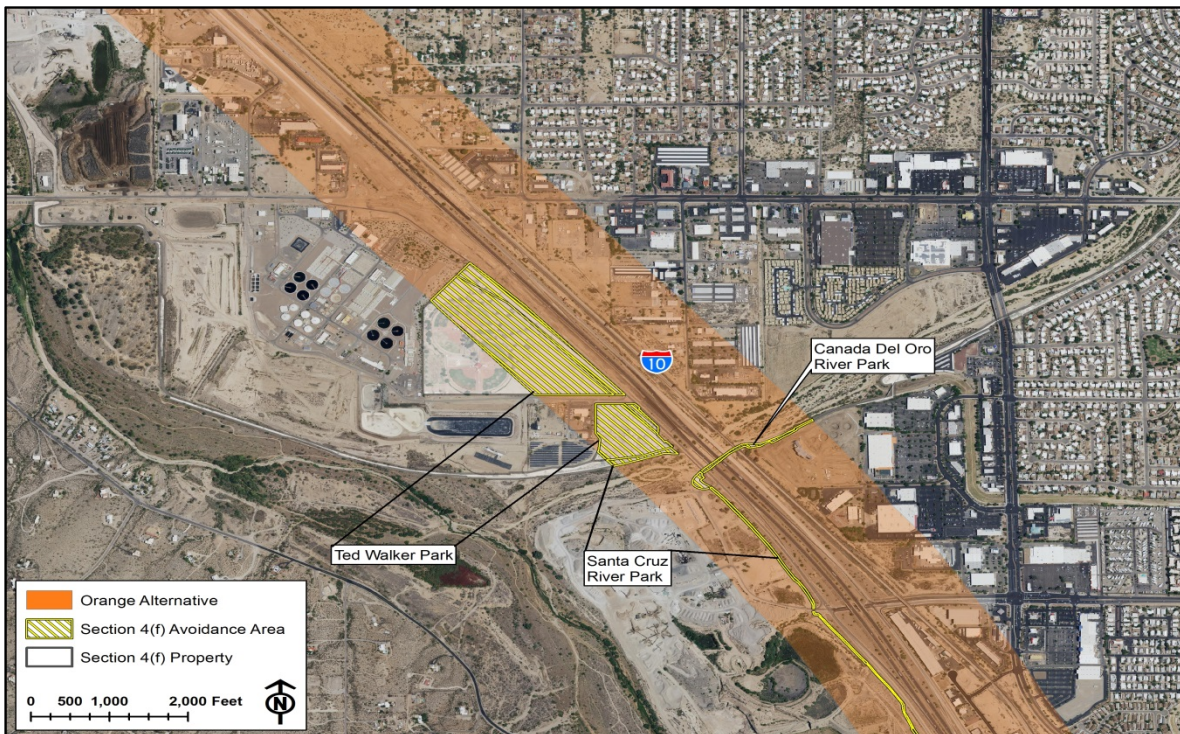
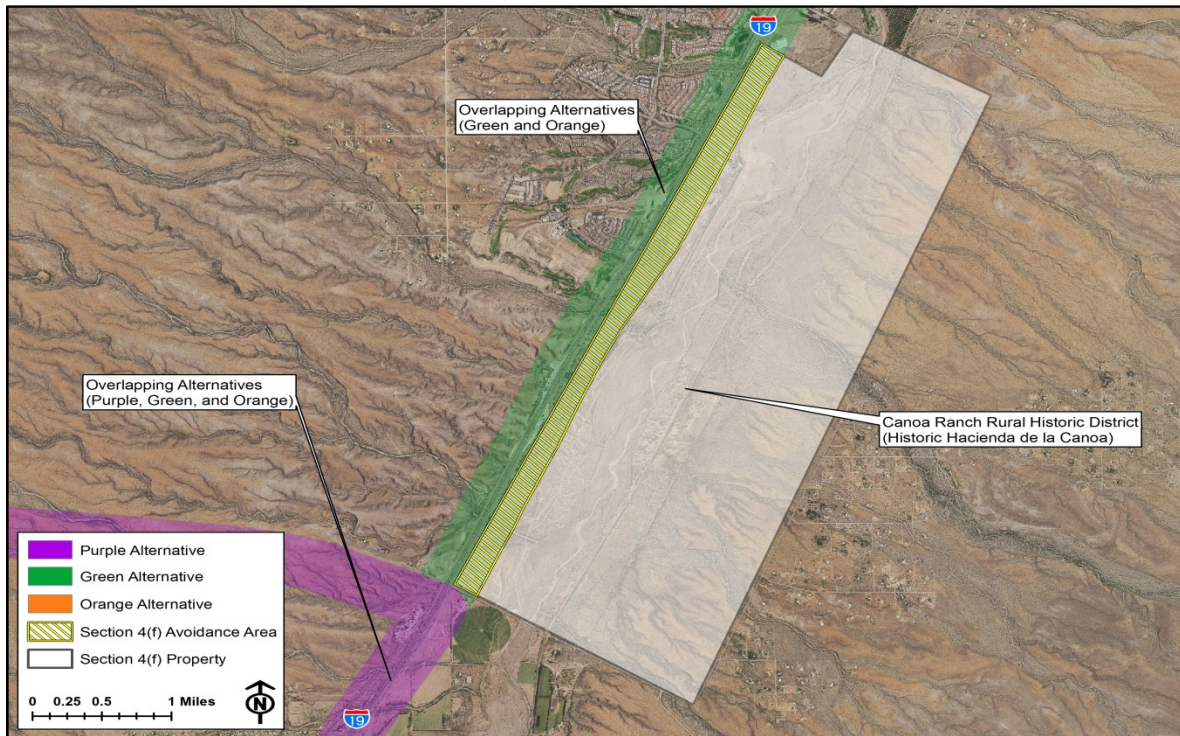


Figure 4-15 Canada Del Oro River Park, Ted Walker Park, and Santa Cruz River Park – Orange Alternative (Accommodate in the Corridor)



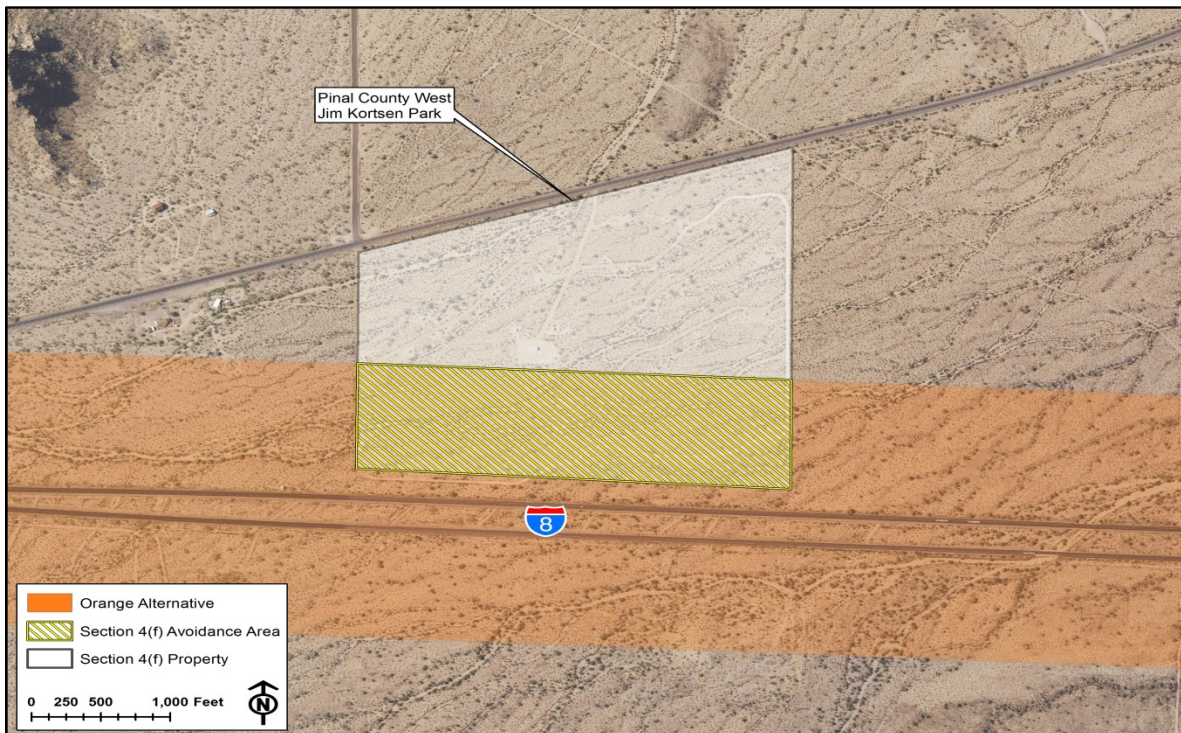
**Figure 4-16 Canoa Ranch Rural Historic District
(Historic Hacienda de la Canoa) – Green and Orange Alternatives
(Accommodate in the Corridor)**



**Figure 4-17 Rillito Vista Park – Orange Alternative
(Accommodate in the Corridor)**



**Figure 4-18 San Lucas Community Park – Orange Alternative
(Accommodate in the Corridor)**



**Figure 4-19 Pinal County West Jim Kortsen Park – Orange Alternative
(Accommodate in the Corridor)**

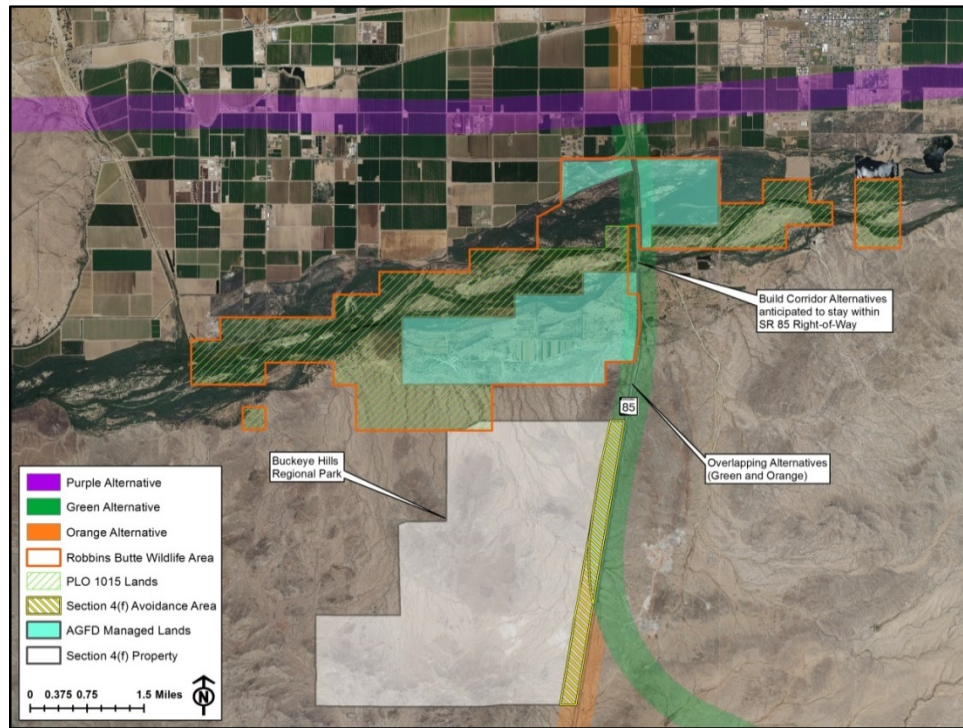


Figure 4-20 Buckeye Hills Regional Park, Robbins Butte Wildlife Area, and PLO 1015 Lands – Green or Orange Alternative (Accommodate in the Corridor)

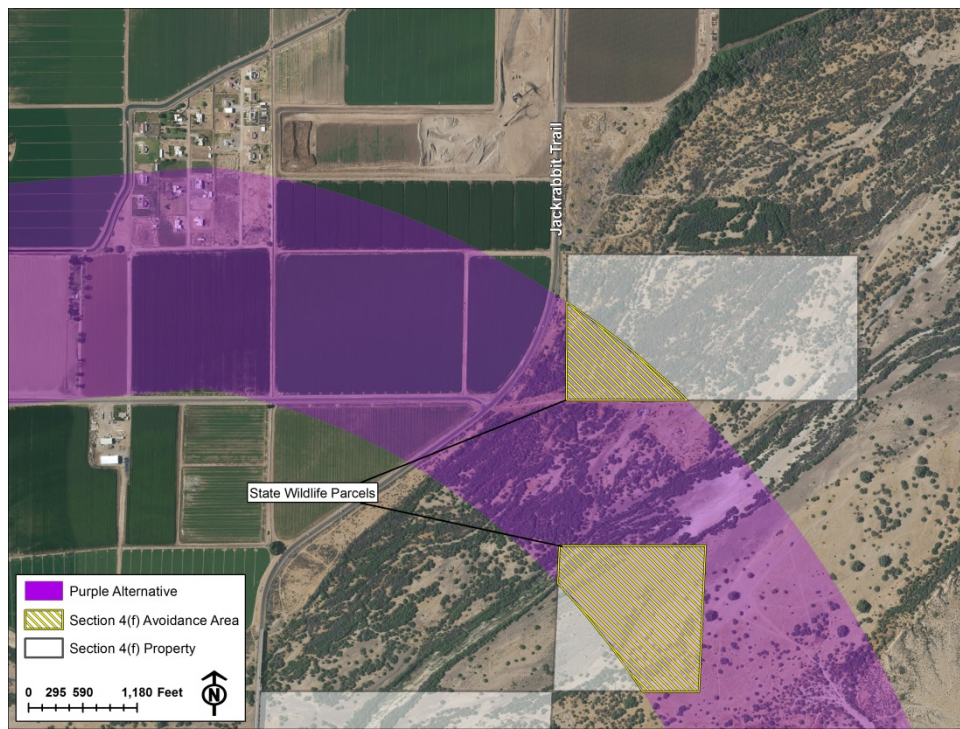
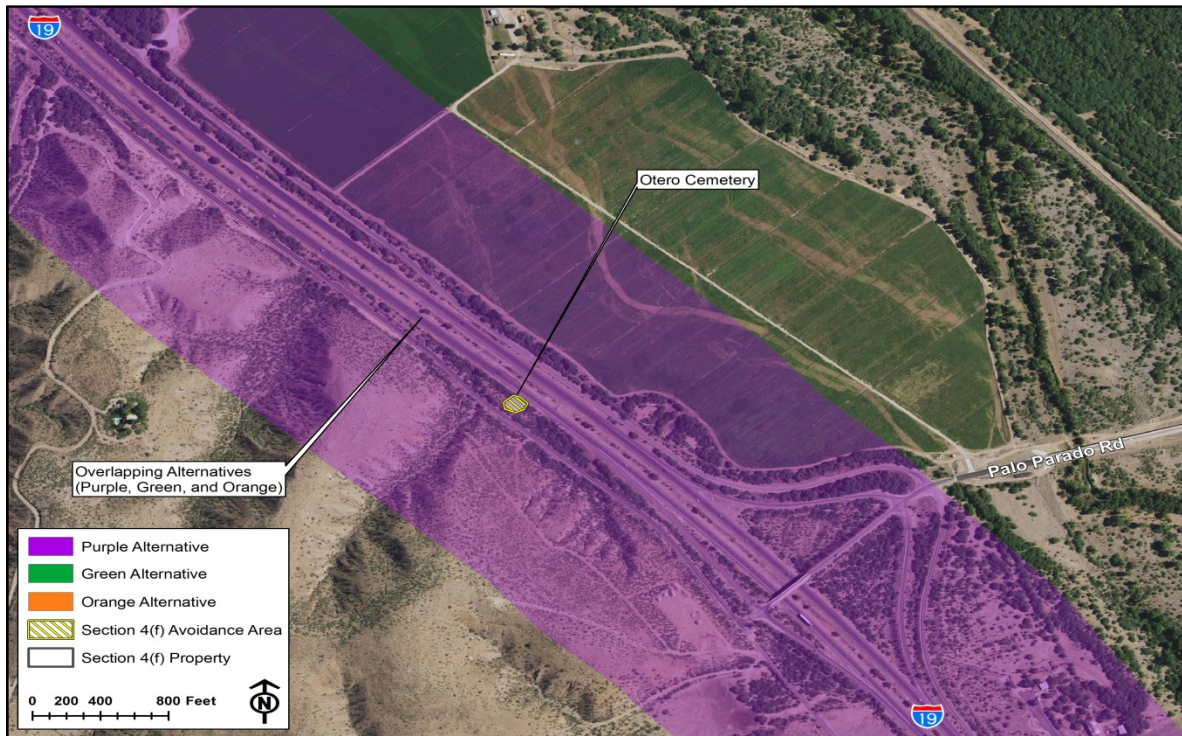
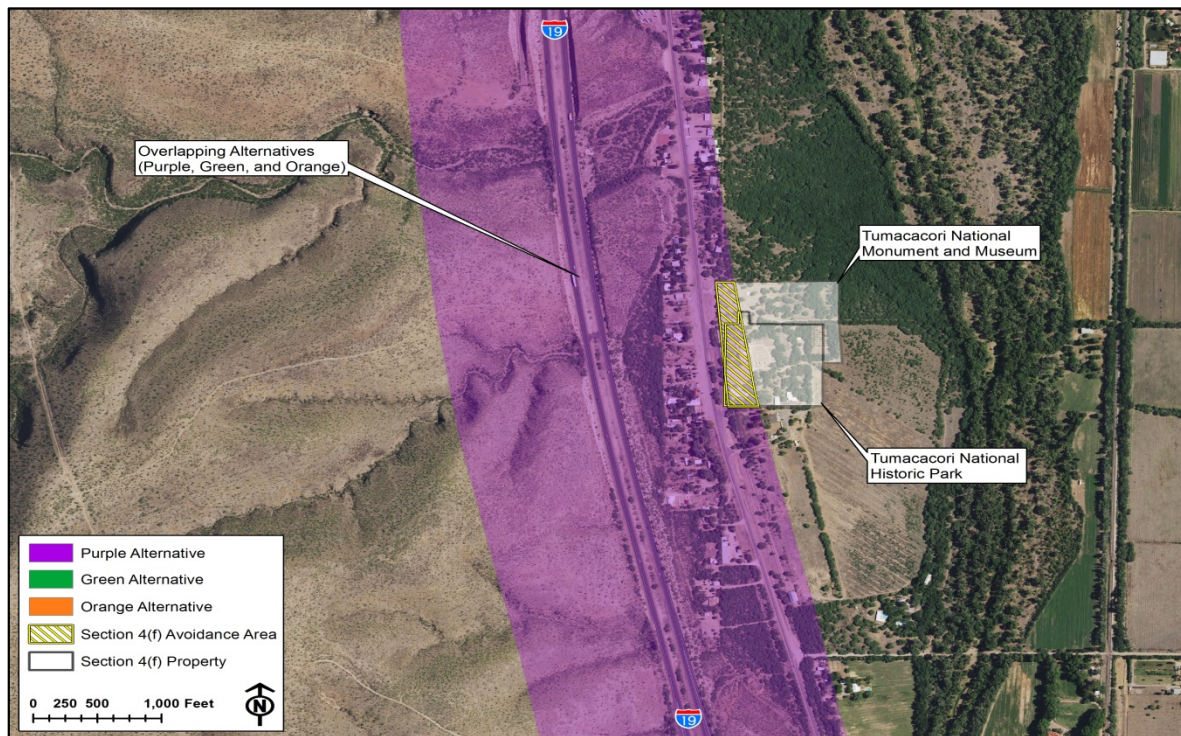


Figure 4-21 PLO 1015 Land Parcels – Purple Alternative (Accommodate in the Corridor)



**Figure 4-22 Otero Cemetery – Purple, Green, or Orange Alternative
(Accommodate in the Corridor)**



**Figure 4-23 Tumacacori National Historic Park and Tumacacori National
Monument and Museum – Purple, Green, or Orange Alternative
(Accommodate in the Corridor)**

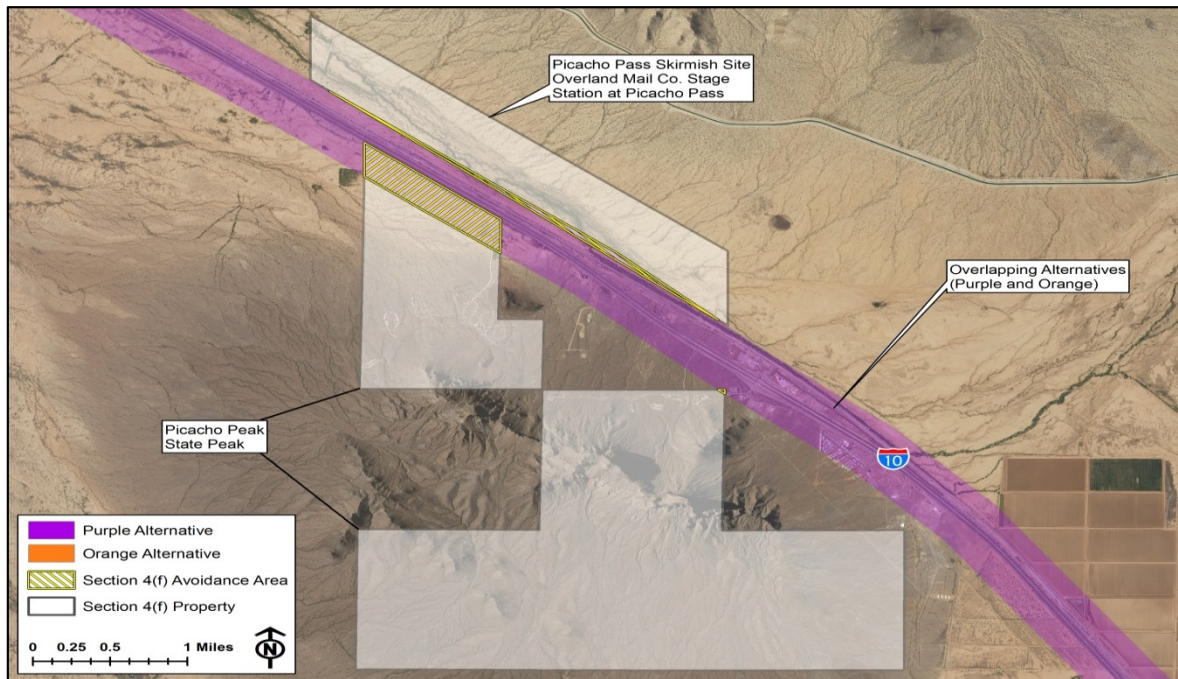
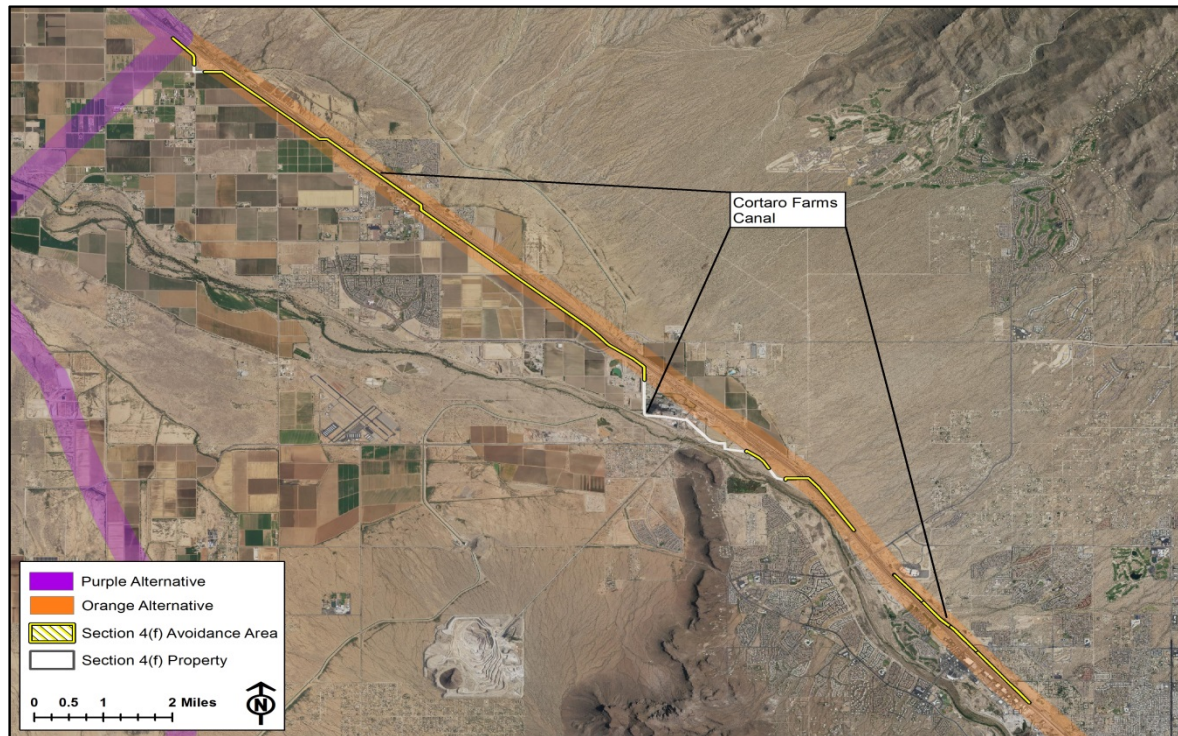


Figure 4-24 Picacho Peak State Park and Picacho Pass Skirmish Site Overland Mail Co. Stage Station at Picacho Pass – Purple or Orange Alternative (Accommodate in the Corridor)



Figure 4-25 Pima Community College Desert Vista Campus – Orange Alternative (Accommodate in the Corridor)



**Figure 4-26 Cortaro Farms Canal – Orange Alternative
(Grade-Separate the Corridor)**

4.4.2.4 Shift the Corridor

FHWA and ADOT identified an opportunity to avoid two properties by shifting the corridor to provide the 400-foot-wide ROW allowance for I-11 outside the boundaries of these properties:

- Palo Verde Regional Park – The property occupies portions of the Purple and Green Alternatives and would obstruct or preclude the ability to provide a highway alignment in that portion of each corridor. To avoid Palo Verde Regional Park, FHWA and ADOT would shift the corridor as shown on **Figure 4-27** (Palo Verde Regional Park – Recommended, Purple, or Green Alternative [Shift the Corridor]).
- Anamax Park – The property occupies portions of the Green and Orange Alternatives and would obstruct or preclude the ability to provide a highway alignment in those portions of each corridor. In these cases, to avoid Anamax Park, FHWA and ADOT would shift the corridor to the east, as shown on **Figure 4-28** (Anamax Park – Recommended, Green, or Orange Alternative [Shift the Corridor]).

In addition, consistent with 23 CFR 774.7(e)(1), opportunities to minimize harm to the properties at subsequent stages in the project development process (for example, Tier 2), are not precluded. The land area occupied by each property and other environmental constraints would not obstruct or preclude the ability to provide a highway alignment that achieves general engineering design standards in the shifted portion of the corridor. As a result of the ability to avoid these properties, FHWA commits that no use of Palo Verde Regional Park and Anamax Park as defined by Section 4(f) would occur as a result of I-11.

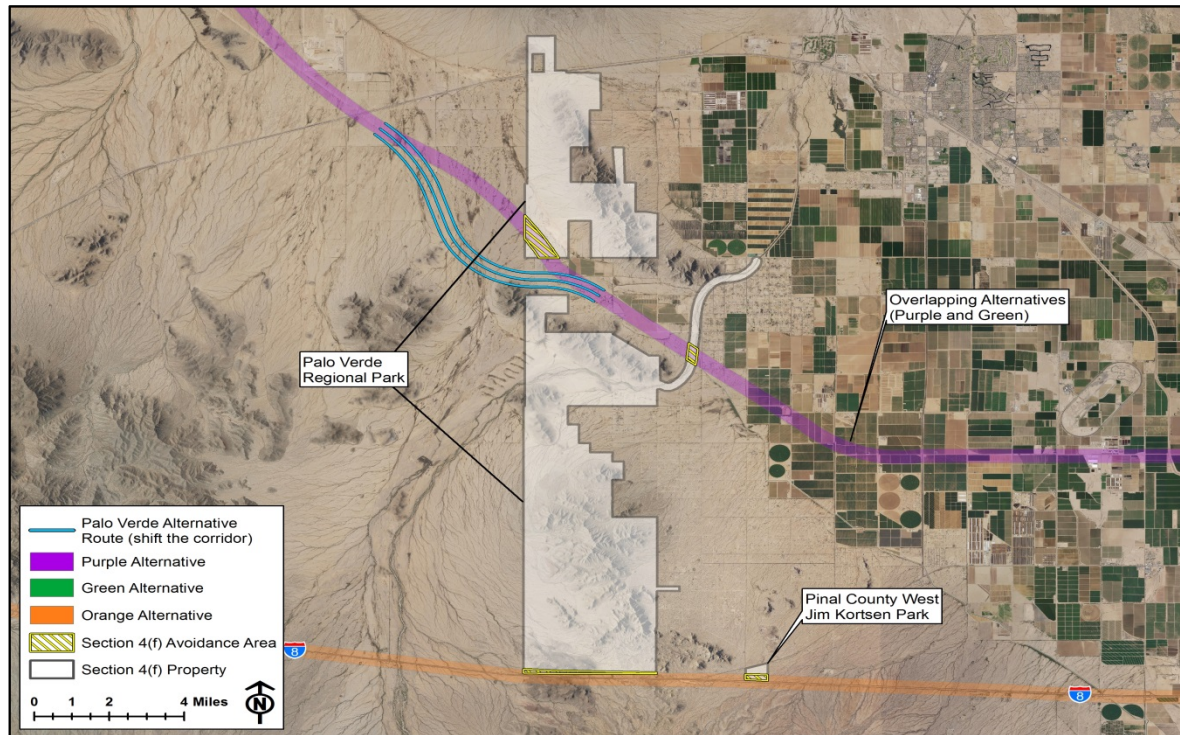


Figure 4-27 Palo Verde Regional Park – Recommended, Purple, or Green Alternative (Shift the Corridor)

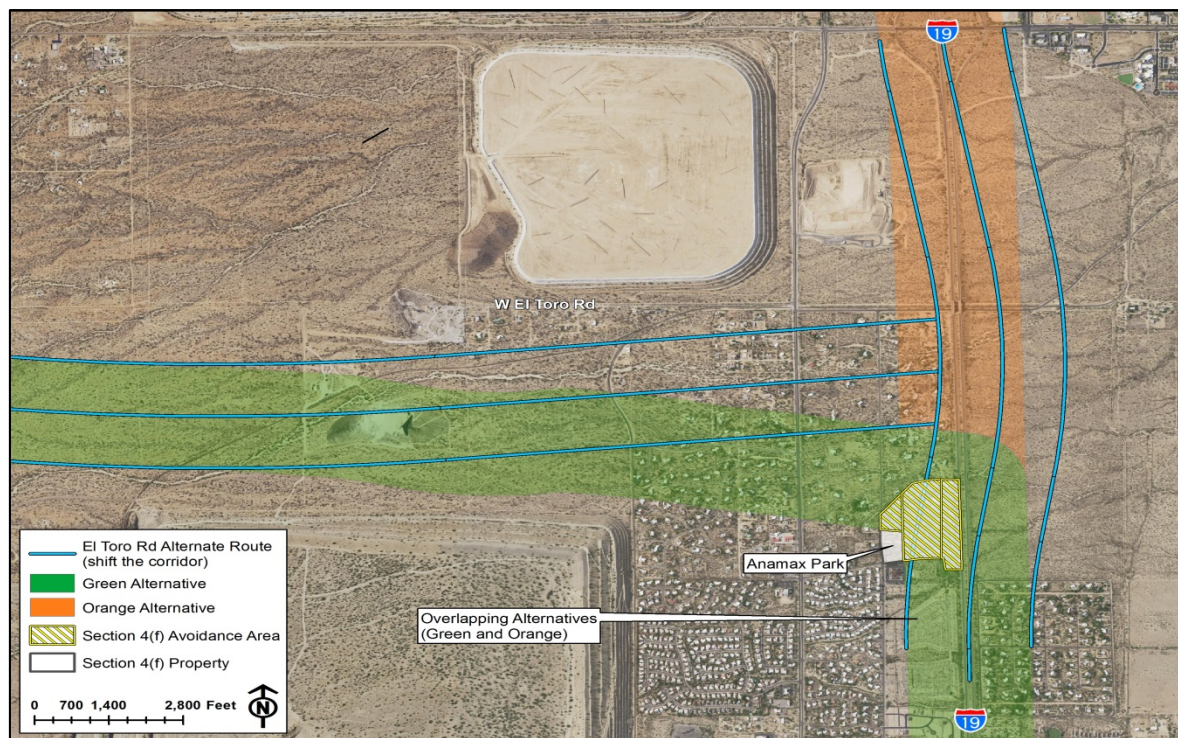


Figure 4-28 Anamax Park – Recommended, Green, or Orange Alternative (Shift the Corridor)



4.4.2.5 Grade-Separate the Corridor

Linear Properties: Trails, Historic Canals, and Historic Railroads

Thirteen Section 4(f)-protected trails, historic canals and railroads cross each Build Corridor Alternative: built segments of the Juan Bautista de Anza National Historic Trail, Julian Wash Greenway, El Paso and Southwestern Greenway (existing and planned), Rillito River Park, , Southern Pacific Railroad, Arizona Southern Railroad, New Mexico-Arizona Railroad: Nogales Branch, Cortaro Farms/Cortaro-Marana Irrigation District Canal, Casa Grande Canal, Gila Bend Canal, Butterfield Overland Mail Stage Route, Buckeye Canal, and Roosevelt Canal.

Figures 4-10 through 4-28 show the typical linear configuration of these properties (except archaeological sites) in relation to the Build Corridor Alternatives. These properties can be avoided through grade-separation or other means. Elevating the roadway corridor on a structure that passes over and spans the linear property or depressing the roadway corridor under a structure that carries the property over the roadway would eliminate the need to incorporate land from the Section 4(f) property. In addition, grade separation would preserve the activities, features, and attributes of the property that qualify it for protection under Section 4(f).

The land area occupied by each property and other environmental constraints would not obstruct or preclude the ability to provide a highway alignment that achieves general engineering design standards in a grade-separated alignment while avoiding each linear property. As a result of the ability to avoid these properties, FHWA commits that no use of the linear properties as defined by Section 4(f) would occur as a result of I-11.

4.4.3 Build Corridor Alternatives – Use Evaluation

The Draft Preliminary Section 4(f) Evaluation has identified the potential for use of the following Section 4(f) properties by the Build Corridor Alternatives, as shown in **Table 4-4**:

- Robbins Butte Wildlife Area (Green and Orange Alternatives)
- Downtown Tucson properties (Orange Alternative)
- TMC (Purple and Green Alternatives)

During Tier 2 studies, historic and archaeological resources will be surveyed, Section 106 consultation will be undertaken, and a Final Section 4(f) Evaluation will be conducted. The findings of this Draft Section 4(f) Evaluation could be refined during Tier 2 if additional Section 4(f) resources are identified at that time. Tier 2 activities will include examination of means to avoid, mitigate, and/or minimize harm to protected resources.

An evaluation of each property is provided in the following subsections, including analyses of avoidance and all possible planning to minimize harm to the level that this first-tier EIS stage allows.

4.4.3.1 Robbins Butte Wildlife Area – No Use or Possible De Minimis Use (Green and Orange Alternatives)

The Robbins Butte Wildlife Area consists of multiple parcels of undeveloped land along both sides of SR 85 at the existing Gila River crossing (**Figure 4-20** [Buckeye Hills Regional Park and Robbins Butte Wildlife Area – Green or Orange Alternative]). The land is preserved and managed for wildlife and wildlife habitat by the Arizona Game and Fish Department (AGFD).



The preserved wildlife habitats are the features, attributes, or activities that qualify the property for protection under Section 4(f).

The Green and Orange Alternatives are aligned along SR 85 at the Gila River Crossing. Preliminary analysis indicates the existing SR 85 ROW (**Appendix E1**) is wide enough to accommodate the proposed I-11 highway cross-section. Increased traffic could increase the likelihood of wildlife collisions, noise and light pollution, and runoff.

Based on the preliminary analysis, it will be possible for FHWA to make a finding of no use or, at most, a finding of *de minimis* use for this property after consultation with the official with jurisdiction.

4.4.3.2 Downtown Tucson Parcels – Possible Individual Uses (Orange Alternative)

Identification of Section 4(f) Properties

More than 20 historic properties and parks fall within the Orange Alternative in the Downtown Tucson area, as shown on **Figure 4-7** (Section 4(f) Properties in Build Corridor Alternatives – South Section). These properties are protected by Section 4(f). **Table 4-1** (Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area) describes the features and attributes of each property.

Proposed Use of Section 4(f) Properties

To accommodate 2040 traffic demands, the Orange Alternative would expand I-10 from 8 lanes to 12 to 14 lanes from the I-19 interchange to Prince Road. The Orange Alternative would require an estimated 120 feet of additional ROW. The 120 feet could be on either side of the existing I-10 ROW, all on the east side of I-10, or all on the west side of I-10. In Downtown Tucson, I-10 is surrounded by dense, established historic communities. Properties protected by Section 4(f) are in close proximity to one another and to I-10, as shown on **Figure 4-29** (Downtown Tucson Section 4(f) Properties – Orange Alternative). It is not possible to widen I-10 without impacting Section 4(f) properties.

The Orange Alternative could potentially impact (use) seven properties protected by Section 4(f) as shown on **Figure 4-29** (Downtown Tucson Section 4(f) Properties – Orange Alternative) and **Table 4-5** (Summary of Use by Build Corridor Alternatives). The seven Section 4(f) properties at risk are:

- Barrio El Membrillo Historic District
- Barrio Anita Historic District
- Levi H. Manning House
- David G. Herrera and Ramon Quiroz Park (formerly Oury Park)
- El Paso and Southwestern Railroad District
- Santa Cruz River Park
- El Paso and Southwestern Greenway (existing trail)

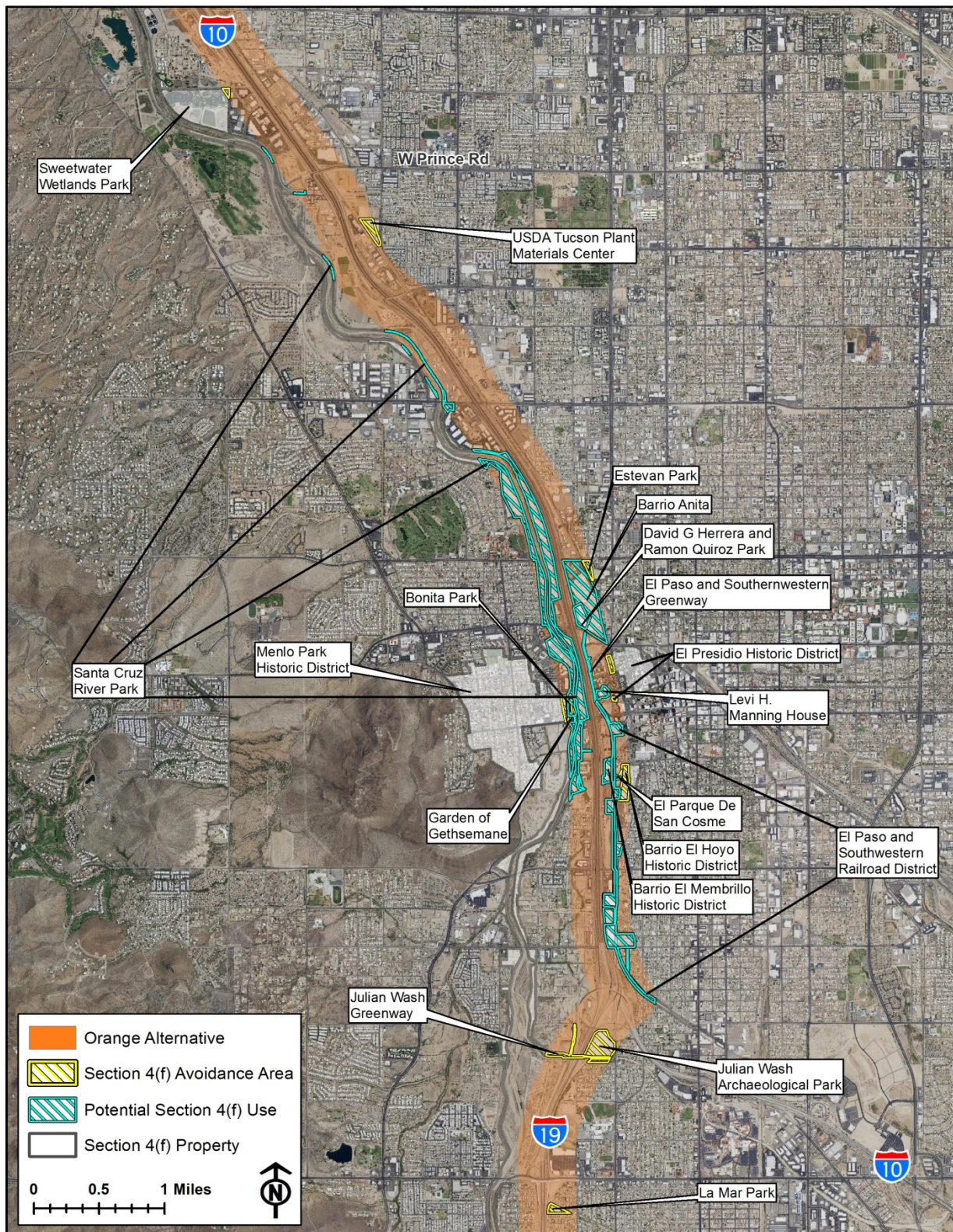


Figure 4-29 Downtown Tucson Section 4(f) Properties – Orange Alternative



Table 3.7-10 (Potential Levels of Impacts on Historic Districts and Buildings) in **Chapter 3** (Affected Environment and Environmental Consequences) describes impacts to historic properties by the Orange Alternative. The Orange Alternative could require:

- Removal of at least one historic residential structure adjacent to I-10 in Barrio Anita,
- Removal of two to four contributing structures in the Barrio El Membrillo Historic District (of about 10 surviving contributing residences) or possible removal of the entire district,
- Acquisition of Levi H. Manning House land,
- Demolition of a portion of the existing roundhouse , acquisition of portions of the El Paso and Southwestern Railroad District,
- Acquisition of parts of the Santa Cruz River Park,
- Acquisition of a portion of the David G. Herrera and Ramon Quiroz Park, a contributing element to the Barrio Anita Historic District, and
- Acquisition and demolition of the El Paso and Southwestern Greenway (existing trail).

The Orange Alternative will have findings of adverse effects under Section 106 of the NHPA and would permanently use Section 4(f) properties. Additional impacts to non-recorded historic properties are described in **Chapter 3** (including three residential structures, the University of Arizona Agriculture Center, and Hotel Tucson).

Avoidance Alternatives

The following analysis examines property-specific avoidance alternatives for the Orange Alternative through Downtown Tucson, including alignment shifts and design changes as specified in FHWA's Section 4(f) Policy Paper (FHWA 2012).

Alignment Shifts

An alignment shift moves the roadway alignment to avoid the Section 4(f) property. In Downtown Tucson, and as shown on **Figure 4-29** (Downtown Tucson Section 4(f) Properties – Orange Alternative), Section 4(f) properties are present on both the east and west sides of the I-10 corridor, with some properties immediately adjacent to the I-10 ROW on opposing sides of the roadway. Shifting the alignment of I-11 to one side of I-10 or the other would result in using Section 4(f) properties; avoiding Section 4(f) properties altogether by shifting the alignment is not possible. As a result, alignment shifts do not result in an avoidance alternative in Downtown Tucson.

Design Changes – Elevated Structure

FHWA and ADOT evaluated the feasibility of elevating I-11 in Downtown Tucson to avoid impacting Section 4(f) properties by using structures to elevate I-11 lanes above I-10. Depending on the design, there may or may not be entry/exit points off I-11 to local streets. The design and exact extent of impacts to Section 4(f) properties would be determined at Tier 2.

Although the elevated lanes could avoid direct impacts on adjacent Section 4(f) properties, noise and visual impacts would result in adverse effects to historic buildings and structures. Deep excavations for the elevated structure foundations would impact archaeological resources. For these reasons, an elevated lanes alternative through Downtown Tucson is not an avoidance alternative. The elevated alternative also would impact businesses and residences that are not



protected by Section 4(f) and would add \$1 billion to the overall capital cost of the Orange Alternative.

Design Changes – Tunnel

FHWA and ADOT also analyzed the feasibility of tunneling I-11 from the I-19 interchange to Prince Road (about four to six miles). The new I-11 lanes would be directly under I-10, which would avoid potential visual and noise impacts. However, the tunnel would impact archeological sites. The tunnel would require reconfiguring the I-19 interchange to allow access into the tunnel.

The cost estimate for tunneling the I-11 is approximately \$3.5 to \$5.1 billion. The cost of widening I-10 at grade is estimated at \$240 million. Even if a tunneling option could be designed that would completely avoid Section 4(f) properties, this option would have an extraordinary cost and would not be prudent (Avoidance Analysis Factor 4).

Mitigation and Measures to Minimize Harm

If the Orange Alternative is selected, alternatives that cause the least harm to Section 4(f) properties in downtown Tucson will be further analyzed.

If the Orange Alternative is selected, the Tier 2 analysis will include the following strategies to minimize impacts to Section 4(f) properties in Downtown Tucson:

- Avoid Menlo Park Historic District, Bonita Park, Garden of Gethsemane, El Parque De San Cosme, and Barrio El Hoyo Historic District
- Design modifications to avoid or minimize the use of Section 4(f) properties
- Replacement of land and facilities of comparable value and function
- Compensation
- Restoration, preservation, interpretation, and recordation of impacted historic structures and properties (Historic American Buildings Survey/Historic Architectural and Engineering Record)
- Mitigation developed in coordination with the officials with jurisdiction over parks and recreation areas
- Consideration of the views of the official(s) with jurisdiction
- Consideration of impacts and benefits to non-Section 4(f) resources (such as the natural and built environment)

Coordination and Public Involvement

FHWA and ADOT initiated coordination with SHPO about the downtown Tucson properties during the EIS scoping process. SHPO concurred that the Orange Alternative would have adverse effects to multiple historic and Section 4(f) properties (FHWA letter dated November 12, 2018 with concurrence from SHPO on November 23, 2018 and December 19). If the Orange Alternative is selected, FHWA will further evaluate the potential for use of Section 4(f) properties in downtown Tucson, coordinate with officials with jurisdiction, and prepare a final Section 4(f) Evaluation for the downtown Tucson properties during the Tier 2 analysis.



Throughout the scoping and outreach process, the study team received input from members of the public in Pima County expressing opposition to the I-11 Corridor. FHWA and ADOT invited the US Institute for Environmental Conflict Resolution to facilitate a discussion in Pima County regarding the I-11 Tier 1 EIS. The US Institute is a program of the Udall Foundation and exists to assist parties in resolving environmental, public lands, and natural resource conflicts nationwide that involve federal agencies or interests. The purpose of the discussion was to gain a better understanding of the values and interests of the communities in Pima County that the I-11 corridor could impact. The stakeholders were divided into two groups based on the communities they were representing: downtown Tucson and Avra Valley. During the discussions, stakeholders had the opportunity to identify community-specific issues and concerns that could inform the decision-making process.

The downtown Tucson stakeholder group noted several adverse impacts the I-11 could have on their community, including:

- Demolishing culturally significant historic resources and buildings;
- Causing further separation of the unique culture and history of the neighborhood;
- Altering the sense of place in downtown Tucson; and
- Creating economic hardships for nearby businesses.

4.4.3.3 Tucson Mitigation Corridor – Nationwide Programmatic Section 4(f) Evaluation (Net Benefit) (Purple and Green Alternatives)

Identification of the Section 4(f) Property

The TMC (**Figure 4-30** [Tucson Mitigation Corridor – Purple or Green [CAP Design Option] Alternative]) is a 2,514-acre property owned and managed by the US Department of the Interior, Reclamation. The TMC was established in 1990 as a commitment made by Reclamation with USFWS, AGFD, and Pima County in the EIS for the CAP. The four parties signed a cooperative agreement to manage the TMC property in accordance with a Master Management Plan that prohibits future development other than existing wildlife habitat improvements. This agreement is intended to preserve habitat from urbanization while maintaining an open wildlife movement corridor. Accordingly, Reclamation identified the TMC as a property protected by Section 4(f) in its July 8, 2016, letter to ADOT during scoping (**Appendix F**).

The CAP canal is a water conveyance canal that crosses the TMC from north to south. The CAP canal underwent its own NEPA process, during which time the importance of providing wildlife connectivity across the TMC was echoed by the public. To maintain a functional wildlife movement corridor across the CAP canal on the TMC property, Reclamation installed seven concrete pipe sections (also known as siphons) under washes, keeping the surface intact for wildlife to use. Providing the siphons was critical to obtaining public acceptance of the CAP alignment. Since installation, Reclamation and its partners have observed wildlife using the siphon crossings to migrate across the TMC between the Ironwood Forest National Monument and SNP.

Proposed Use of Section 4(f) Property

In the Draft Preliminary Section 4(f) Evaluation, the Purple or Green Alternatives (Options C and D) would incorporate a portion of TMC land, thereby using the TMC property. The 2,000-foot-wide corridors of each Build Corridor Alternative would be aligned along Sandario Road, which parallels the western boundary of the property in a north-to-south orientation.

- 1 Additional ROW would be required beyond the approximately 80-foot ROW of Sandario Road to
- 2 accommodate I-11 and Sandario Road. As a result, I-11 would potentially use approximately
- 3 453 acres (15 percent) of the TMC property along the length of the TMC's western boundary
- 4 (Section 4.4.1).

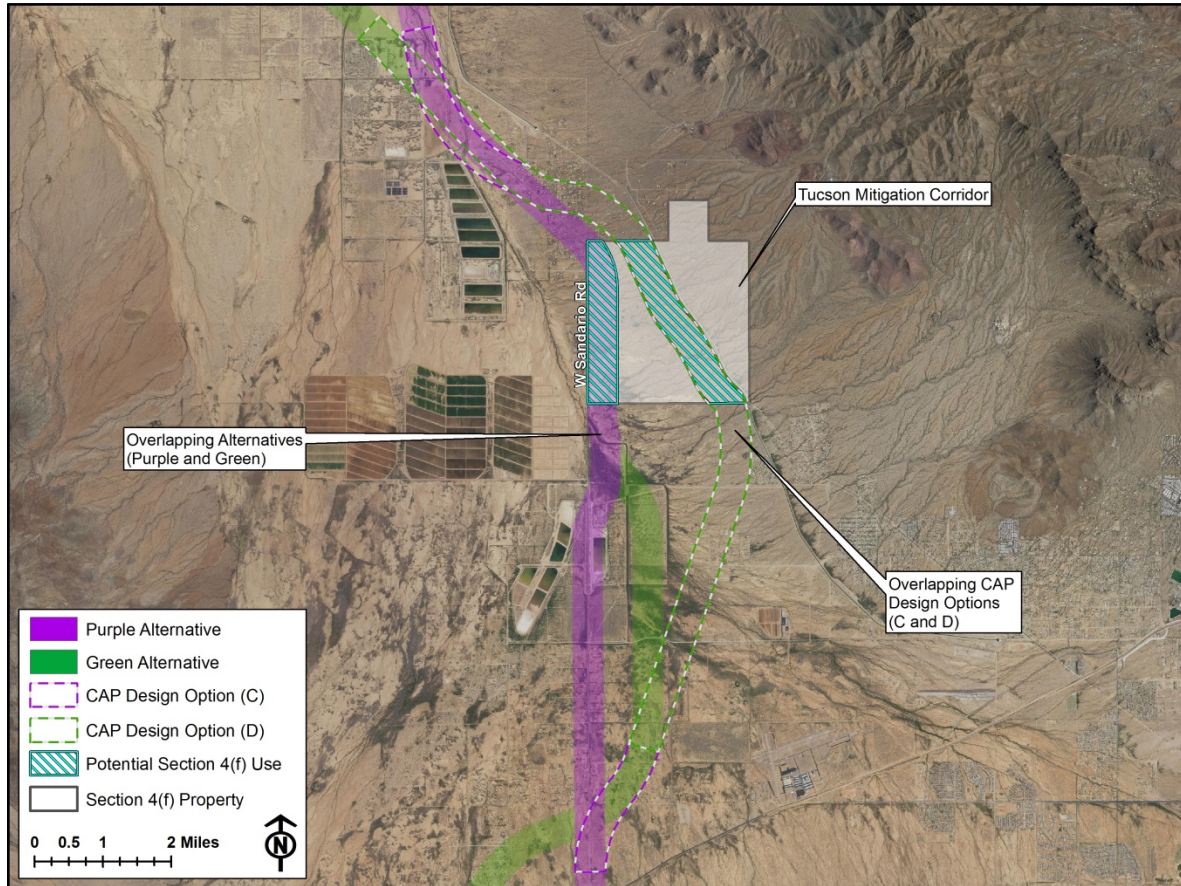


Figure 4-30 Tucson Mitigation Corridor – Purple or Green (CAP Design Option) Alternative

5 **Avoidance Analysis**

6 The property-specific avoidance analysis for the TMC applied the feasible and prudent criteria
7 specified by 23 CFR § 774.17 and summarized below. An alternative that potentially uses a
8 Section 4(f) property is not an avoidance alternative. An alternative is determined feasible if it
9 could be built as a matter of sound engineering judgment. Under 23 CFR § 774.17, factors are
10 defined for determining that alternatives are not prudent. An alternative would not be prudent for
11 any of the following reasons:

- 12 • **Factor 1** – It would compromise the project to a degree that it is unreasonable to proceed
- 13 with the project in light of its stated purpose and need.
- 14 • **Factor 2** – It would result in unacceptable safety or operational problems.



- **Factor 3** – After reasonable mitigation, it would still cause one or more of the following:
 - Severe social, economic, or environmental impacts
 - Severe disruption to established communities
 - Severe, disproportionate impacts on low-income or minority populations
 - Severe impacts on environmental resources protected under other federal statutes
- **Factor 4** – It would result in additional construction, maintenance, or operational costs of an extraordinary magnitude.
- **Factor 5** – It would cause other unique problems or unusual factors.
- **Factor 6** – It would involve multiple issues from Factors 1 through 5 that, while individually minor, could cumulatively cause unique problems or impacts of extraordinary magnitude.

The property-specific avoidance analysis for the TMC assesses whether, in the context of professional engineering judgment and the findings of the Draft Tier 1 EIS, permanent incorporation of land from the TMC property potentially can be avoided by the No Build Alternative (do nothing) and two property-specific avoidance strategies identified in FHWA's guidance paper titled *Section 4(f) Evaluation and Approval for Transportation Projects That Have a Net Benefit to a Section 4(f) Property*. The two avoidance strategies are (1) improve the transportation facility without using a Section 4(f) property and (2) build the transportation facility at a location that does not require the use of the Section 4(f) property. The results of the avoidance analysis for the TMC property are presented below.

Do Nothing

The do nothing or No Build Alternative is described in Section 2.3.1 and Section 4.4.1. The No Build Alternative is expected to avoid potential use of Section 4(f) properties. However, the No Build Alternative is not a prudent avoidance alternative under Factor 1. Specifically, and as described in **Chapter 6** (Recommended Alternative), the No Build Alternative would compromise the project to such a degree that it would be unreasonable to proceed in light of the I-11 Purpose and Need. The No Build Alternative would not achieve the I-11 Purpose and Need, as it would not provide a high-priority, high-capacity, access-controlled transportation corridor; would not support improved regional mobility for people, goods, and Homeland Security; and would not enhance access to the high-capacity transportation network to support economic vitality. Under the No Build Alternative, travel between Nogales and Wickenburg would occur on various existing corridors, such as I-19, I-10, SR 101L, SR 202L, SR 303L, I-17, SR 74, and US 60.

Improve an Existing Transportation Facility Without Use of a Section 4(f) Property

The Orange Alternative is co-located with I-10 in the Tucson area. The Orange Alternative would avoid the TMC but would impact more Section (f) properties than the Purple and Green Alternatives. The Orange Alternative is not an avoidance alternative.

The Purple, Green, and Orange Alternatives are the outcome of an alternatives analysis that examined opportunities to avoid Section 4(f) and non-Section 4(f) properties (**Chapter 2** [Alternatives Considered]). During that alternatives analysis, the following designs were examined:



- Alignment west of the TMC property within the Sandario Road ROW – Sandario Road runs parallel to the western boundary of the TMC. The ROW is 80 feet wide and contains Sandario Road, a two-lane, two-way road. An 80-foot-wide ROW is not wide enough to accommodate the proposed 400-foot ROW for I-11 by itself or along with existing Sandario Road. Additional ROW would be needed to accommodate I-11 and retain the traffic movements provided by Sandario Road.

FHWA and ADOT considered whether I-11 and Sandario Road could be accommodated in the ROW by creating a three-level structure in the ROW with Sandario Road at grade, with one direction of I-11 on a second level and the other direction of I-11 on a third level. While the width of the ROW potentially could accommodate such an arrangement, the design of a multilevel structure over a distance of approximately 2.0 miles (the length of the TMC's western boundary) would require extensive entrance and exit structures and provisions for emergency access. The structures would extend impacts beyond the TMC area to an unreasonable degree. Wildlife connectivity would be disrupted at the entrance and exit structures. The structures would be substantially more visually invasive than an at-grade highway. Also, the multi-level structure would not be desirable with respect to maintenance and future expansion (Factors 1 and 2). Thus, while a multilevel structure may be feasible, it is not prudent.

Build the Transportation Facility in a Location without Use of a Section 4(f) Property

All of the Build Corridor Alternatives impact Section 4(f) properties. The Orange Alternative would avoid the TMC Section 4(f) property but would impact Section 4(f) properties that are clustered in Downtown Tucson. FHWA and ADOT considered the following designs to avoid Section 4(f) properties.

- Corridor east of the TMC – The TMC is bordered on the east by the TMC and to the north by SNP (both Section 4(f) properties). Therefore, an alignment to the east of the TMC is not an avoidance alternative.
- Corridor west of Sandario Road – The Tohono O'odham Nation owns most of the land west of Sandario Road. Early coordination with the Tohono O'odham Nation determined that the Tribe did not want the project on their sovereign lands. **Appendix F** provides the resolution passed by the Schuk Toak District of the Tohono O'odham Nation, which states that the Garcia Strip Community in the Schuk Toak District of the Tohono O'odham Nation opposes a project alignment on or near their community on the eastern boundary of the Tohono O'odham Nation property west of Sandario Road. Therefore, a corridor west of Sandario Road is not feasible.
- Elevated Structure – Placing I-11 on an elevated structure over the TMC would allow space for wildlife movements across and underneath the roadway facility. Supporting columns would be required at intervals across the property to support the elevated structure. Sandario Road would remain a barrier to wildlife movements. The elevated structure option would not provide a net benefit to wildlife movements.
- Tunneling – Placing I-11 in a tunnel under the TMC or under Sandario Road would reduce the amount of land incorporated from the TMC property. Tunneling activities would impact historic and archaeological sites on the TMC property. Although tunneling could maintain wildlife connectivity at the ground level on the TMC property, Sandario Road would remain a barrier to wildlife movements. The tunnel option would not provide a net benefit to wildlife movement. In addition, a tunnel of this magnitude would cost more than \$1 billion in



comparison to \$100 million for the at-grade options. Therefore, this option is not prudent due to cost.

During Tier 2 studies, the 2,000-foot width of a selected Build Corridor Alternative would be refined to a specific roadway alignment. Potential impacts identified in this Draft Preliminary Section 4(f) Evaluation may be avoided or minimized when a specific roadway alignment is identified. At that time, the Section 4(f) Evaluations will analyze the specific roadway alignment for potential uses of Section 4(f) protected properties.

Mitigation and Measures to Minimize Harm

FHWA and ADOT are coordinating with Reclamation in regard to the TMC property. Reclamation is the official with jurisdiction over the TMC property because, using the definition provided in 23 CFR 774.17, Reclamation is the agency that owns and administers the TMC property and it is the sole agency that is empowered to represent Reclamation on matters related to the TMC property.

Early coordination between FHWA, ADOT, and Reclamation and input received from the public identified an opportunity to refine the alignment of the Purple and Green Alternatives on the TMC property. Because the purpose of the TMC is to enable wildlife movements across the property, FHWA and ADOT coordinated with Reclamation on developing a conceptual roadway ROW width and alignment designs that would minimize impacts to wildlife movements. Concepts considered included use of the existing Sandario Road ROW with additional ROW from the TMC property (as originally designed) or alignment of I-11 alongside the existing CAP canal that crosses the TMC in a southeast to northwest direction. The CAP canal is a water conveyance system that has been fitted with wildlife crossing areas, which reduce the barrier effect to wildlife movements that the system could otherwise have. A summary of FHWA, Reclamation, and ADOT coordination in regard to these concepts is described as follows:

- Alignment Co-located with Existing Sandario Road – Co-locating I-11 with Sandario Road and using the Sandario Road ROW for a portion of the I-11 ROW needs would reduce the amount of TMC land that would be needed for I-11 compared with a stand-alone alignment across the property. However, Reclamation is concerned not only with the property impacts at that location but also with the potential negative effects of I-11, Sandario Road and the CAP canal on wildlife movements. Specifically, each existing linear facility (Sandario Road and the CAP canal) has some barrier effect on wildlife movements across the property. Placing I-11 along Sandario Road would add at-grade interstate highway infrastructure (additional travel lanes and barrier dividers), thereby increasing the barrier effect at the Sandario Road location. Reclamation indicated that I-11/Sandario Road and the CAP canal would form two parallel linear systems that would negatively affect wildlife movements to a greater extent than exists today.
- Alignment Along the West Side of the CAP Canal, Existing Sandario Road – Because of Reclamation's concerns about co-locating I-11 with Sandario Road, FHWA, ADOT, and Reclamation worked together to develop a concept that would place I-11 along the west side of and parallel to the CAP canal. An alignment on the east side of the CAP canal is infeasible because of the sloping condition of the land. The west side alignment would consolidate the two linear systems in one general location. The concept for I-11 would include wildlife crossing areas that are in line with the existing CAP siphon crossings. Reclamation prefers this alignment of I-11 along the CAP canal because, although land from the TMC would be required for I-11, the alignment would consolidate the I-11 and CAP infrastructure in one general location. However, Reclamation was concerned about the



negative effects on wildlife movements that would be caused by retaining existing Sandario Road in its current location and the I-11/CAP corridors.

- Alignment Along the West Side of the CAP Canal, with Mitigation – Based on these concerns, FHWA, ADOT, and Reclamation worked together to develop the following mitigation concepts to relocate Sandario Road and reduce the barrier effect of the I-11/CAP canal corridors:
 - Remove and reclaim Sandario Road. As identified in Reclamation’s June 8, 2018, letter (**Appendix F**), ADOT would terminate Sandario Road at the northern and southern border of the TMC (about a 2-mile section of road) using cul-de-sacs. ADOT would remove the abandoned section of the road and any fencing or other features that are a wildlife barrier and reclaim the ROW with native habitat. The design would remove barriers for wildlife while ensuring local access is maintained.
 - Sandario Road is managed by Pima County. The ownership of the road is half Pima County and half Tohono O’odham Nation. Pima County has a maintenance easement on the tribal land. Relocating Sandario Road would be undertaken as an integral part of the proposed project if the Purple or Green Alternative were to be selected. During Tier 2 study, FHWA and ADOT would undertake coordination with Reclamation, the Tohono O’odham Nation, Pima County, the public, and others as part of identifying a specific design and construction plan for relocating Sandario Road, assessing potential benefits and impacts, and developing appropriate mitigation.
 - I-11 Wildlife Crossings. ADOT would incorporate eight wildlife crossing areas into the I-11 and Sandario Road design such that the crossings are in line with the existing CAP canal siphons crossing. By removing Sandario Road, co-aligning I-11 alongside the CAP canal, and co-aligning wildlife crossing areas, the barrier effect formed by existing Sandario Road would be removed. Reclamation supports this mitigation measure as it would have the beneficial effect of removing the barrier effect caused by existing Sandario Road, thereby encouraging and enhancing conditions for wildlife movements across the TMC. Reclamation also supports this mitigation measure because it will consolidate the I-11/CAP canal infrastructure in one location and reduce the potential barrier effect I-11 could cause on the TMC property. As stated in their letter of June 8, 2018, this will encourage and enhance conditions for wildlife movements across the TMC.

As a result of this coordination activity, FHWA and ADOT have added the I-11 alignment along the CAP canal with mitigation (removed and reclaimed Sandario Road and co-aligned wildlife crossings with the CAP canal) as the CAP Design Option in the Draft Tier 1 EIS.

If the Purple or Green Alternative is selected, FHWA and ADOT propose and commit to including the CAP Design Option plus additional mitigation to provide a net benefit to the features and values of the TMC. The above mitigation measures and additional commitments to the proposed measures are summarized below:

1. Wildlife Studies Prior to Tier 2 Process. FHWA and ADOT will coordinate with AGFD and USFWS, as recognized wildlife authorities, on determining the studies required to understand east-west wildlife movement needs (both on and off the Tucson Mitigation Corridor [TMC]) within Avra Valley. These studies will gather baseline wildlife data, including evaluation of historic and current movement data, and surveys of existing populations. Using the baseline data, the studies will identify the extent, location, requirements, target species, and expected benefits of additional wildlife movement areas, supporting structures, and



other mitigation measures. Finally, the studies will 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 management and agreements with that entity would take place during the Tier 2 process. FHWA and ADOT will fund and facilitate the implementation of the identified wildlife studies prior to the initiation of the Tier 2 process so that the results can be used to inform the I-11 design.

2. Mitigation Recommended in Wildlife Studies Including Additional Wildlife Corridor. As part of the Tier 2 design, FHWA and ADOT would use the results of the wildlife studies, in consultation with AGFD, USFWS, and the TMC Working Group, to identify wildlife movement areas, supporting structures, and other mitigation measures to incorporate into the I-11 Corridor. Mitigation measures may be located outside the TMC but will be located between the Tucson Mountains and the Roskrige Mountains to the west, and they will support the purpose of the TMC.
3. Land Replacement. FHWA and ADOT would transfer any lands acquired for TMC mitigation to an entity that would protect the lands for wildlife and wildlife movement purposes. FHWA and ADOT would consult with the TMC partners to jointly identify and agree on the appropriate entity
4. Relocate and Reclaim Sandario Road. ADOT would relocate Sandario Road to coincide with the new I-11 alignment. ADOT would remove and reclaim about a 2-mile section of the old road with native vegetation. The design would remove barriers for wildlife (including the road and associated roadway fencing) while maintaining any necessary local access.
5. Wildlife Crossings Concurrent with CAP Canal Wildlife Crossings. ADOT would place wildlife crossings on I-11 that align with CAP siphon crossings in the TMC and would place one wildlife crossing immediately north of the TMC (a total of seven crossings). The purpose of the I-11 wildlife crossings is to provide continuity to the existing CAP wildlife crossings (siphons) and minimize impacts to wildlife movements between the Tucson Mountains and Roskrige Mountains.
6. Design Standards. Reclamation and the Central Arizona Water Conservation District (CAWCD) have design standards for facilities that encroach on CAP lands. ADOT would comply with these standards where I-11 crosses CAP lands or is adjacent to the CAP facility.
7. No Interchanges in the TMC. ADOT would prohibit exits and interchanges on I-11 within the TMC.
8. No Interchanges between West Snyder Hill Road and West Manville Road. To maximize the effectiveness of the TMC mitigation measures, ADOT would not build exits or interchanges on I-11 between West Snyder Hill Road and West Manville Road. The direct distance between these two roads is approximately 9 miles.
9. Minimize Width of I-11 in TMC. Within appropriate interstate design standards, ADOT would minimize the width of I-11 through the TMC. The design would occur during Tier 2.
10. Land Use Planning. Understanding the potential for indirect and cumulative land use effects from the I-11 project, ADOT would be an active partner in a broader effort with Metropolitan Planning Organizations, local jurisdictions, resource agencies, and private stakeholders to cooperatively plan development in the I-11 corridor. The effort would coordinate wildlife



connectivity, local land use planning, and context-sensitive design for the I-11 facility. The White Tanks Conservancy may be a model for this type of effort. Coordination with Pima County on the implementation of the Sonoran Desert Conservation Plan also could be part of the effort.

Additional mitigation measures that would reduce the impact to sensitive resources in the vicinity of the TMC that are discussed elsewhere in the EIS are:

- **Lighting Compliant with Dark Skies.** Roadway lighting would be compatible with dark skies objectives and lighting would be limited to be consistent with land use and development patterns at the time of the I-11 implementation.
- **Visual Screening.** The roadway would be designed in such a way as to screen the facility from sensitive viewpoints in the area. The design would use various measures, such as vegetation, berms, and topography or partial depression of the roadway, to accomplish this. The screening also would reduce noise impacts.

Coordination and Public Involvement

FHWA and ADOT coordinated with Reclamation and TMC management partners in each phase of alternatives development and evaluation, beginning with scoping and continuing through development and evaluation of the Build Corridor Alternatives. Specifically, and as described in Section 4.4.2, Reclamation identified the TMC as a property protected by Section 4(f) in their July 8, 2016 letter (**Appendix F**). FHWA confirms this status. Subsequent coordination meetings between FHWA, ADOT, and Reclamation in 2017 and 2018 included discussion of the merits and flaws associated with aligning the Build Corridor Alternatives along Sandario Road or along the CAP canal and relocating Sandario Road and co-aligning the I-11/CAP canal wildlife crossings. In all such discussions, minimizing impacts to wildlife movements was the primary concern of all parties.

This detailed coordination work was critical to identifying and resolving concerns regarding the ability of the TMC property to continue achieving its mission of enabling wildlife movements. The meeting memoranda found in **Appendix F** of the Draft Tier 1 EIS provide evidence of the coordination activities. Circulation of the Draft Tier 1 EIS and Draft Preliminary Section 4(f) Evaluation during the public comment period will give the public an opportunity to review and comment upon the activities and findings related to the TMC property.

FHWA and ADOT invited the US Institute for Environmental Conflict Resolution to facilitate a discussion in Pima County regarding the I-11 Tier 1 EIS. The US Institute is a program of the Udall Foundation and exists to assist parties in resolving environmental, public lands, and natural resource conflicts nationwide that involve federal agencies or interests. The purpose of the discussion was to gain a better understanding of the values and interests of the communities in Pima County that the I-11 corridor could impact. During the meetings, Avra Valley stakeholders identified community-specific issues and concerns that could inform the decision-making process.

The Avra Valley stakeholder group noted several adverse impacts the I-11 could have on their community, including:

- Impacted viewsheds;
- Loss of community cohesion;



- Fragmentation of wildlife connectivity; and
 - Potential contamination of the City of Tucson's aquifer and SAVSARP and CAVSARP recharge basins.
- Stakeholders from the Avra Valley stakeholder group meetings proposed different strategies to mitigate these concerns, including co-locating with the CAP Canal.

Determination of Net Benefit

The purpose of the TMC and the function that qualifies the TMC for Section 4(f) protection is wildlife refuge and movement. The Purple and Green Alternatives directly impact (use) the TMC, and wildlife mitigation measures are incorporated into these alternatives' corridors. The mitigation measures are aimed at protecting and enhancing wildlife connectivity and movements across the newly introduced I-11 project. The mitigation measures reflect and expand upon those outlined in Reclamation's letter of June 8, 2018.

ADOT and FHWA will continue to coordinate with Reclamation and the TMC management partners throughout the Tier 1 EIS process to determine if the identified process and mitigation strategies will improve wildlife connectivity for the TMC and result in a net benefit. FHWA is making a preliminary Section 4(f) evaluation in the Tier 1 Draft EIS and after public comment, will make a preliminary net benefit determination in the Tier 1 EIS ROD. A Final Section 4(f) Evaluation and net benefit determination will be made during the Tier 2 environmental process, after wildlife studies have been completed and specific mitigation measures finalized.

4.4.4 Constructive Use

4.4.4.1 Regulatory Context

The requirements of 23 CFR 774.15 describe the conditions in which a constructive use could occur:

"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. 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; or

(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 impacts 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 [Federal Transportation Administration] 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; or



- (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; or
- (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.”

4.4.4.2 Tucson Mountain Park and SNP Assessment

Based on comments from Reclamation, FHWA assessed the potential for constructive use on Tucson Mountain Park and SNP. **Appendix F** provides the detailed constructive use assessment.

Noise and visual impacts, combined, would impact the visitor experience at Tucson Mountain Park and SNP. However, according to FHWA policy and practice on constructive use, these combined impacts would not be so severe as to substantially impair or diminish the attributes that qualify the parks for protection under Section 4(f). The attributes of each property are listed in **Table 4-1** (Parks, Recreation Areas, and Wildlife/Waterfowl Refuges Protected by Section 4(f) in the Study Area) and **Table 4-2** (Historic Sites Protected by Section 4(f) in the Project Corridors) in Section 4.3. Specifically, noise levels with I-11 are predicted to be less than the applicable FHWA noise abatement threshold at SNP and Tucson Mountain Park. Also, ADOT has committed to mitigate impacts on night skies by complying with dark skies ordinances and by limiting lighting, if necessary.

4.4.4.3 Public Land Order (PLO) 1015 Lands and Adjacent AGFD Parcels 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 4-21). **Appendix F** provides the detailed constructive use assessment.

Based on the assessment, FHWA has determined that, if the Purple Alternative is selected, the proximity effects of I-11 to PLO 1015 lands 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.



4.5 Corridor-wide Avoidance Analysis

An avoidance analysis was undertaken at the corridor-wide level because a use of properties protected by Section 4(f) potentially would occur as a result of the Purple, Green, and/or Orange Alternatives. In the corridor-wide avoidance analysis, FHWA and ADOT identified avoidance alternatives that would eliminate potential use of Section 4(f) properties and applied the feasible and prudent criteria to those alternatives. Feasible and prudent avoidance alternatives are those that would avoid using any Section 4(f) property and would not cause other problems of a magnitude that would substantially outweigh the importance of protecting the Section 4(f) property (23 CFR § 774.17). Alternatives evaluated in the avoidance analysis include the No Build Alternative and the following types of alternatives as identified in FHWA's Section 4(f) Policy Paper:

- **Location Alternatives** – A location alternative refers to the rerouting of the entire Project along a different alignment. Examples of location alternatives are the other Build Alternatives assessed in the Draft Tier 1 EIS.
- **Alternative Actions** – An alternative action involves actions that do not require construction or that consist of a different transit mode.

The FHWA Policy Paper also identifies alignment shifts and design changes as types of avoidance. These property-specific types of avoidance strategies are detailed in Section 4.4.2 and 4.4.3.

4.5.1 Avoidance Alternative Feasibility and Prudence Standards

Definitions of feasible and prudent alternatives under 23 CFR § 774.17 note that an alternative that potentially would use any Section 4(f) property is not an avoidance alternative. An alternative is determined feasible if it could be built as a matter of sound engineering judgment. Under 23 CFR § 774.17, factors are defined for determining alternatives to be not prudent. An alternative would not be prudent for any of the following reasons:

- **Factor 1** – “It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;”
- **Factor 2** – “It results in unacceptable safety or operational problems;”
- **Factor 3** – “After reasonable mitigation, it still causes:
 - Severe social, economic, or environmental impacts;
 - Severe disruption to established communities;
 - Severe, disproportionate impacts on low-income or minority populations; or
 - Severe impacts on environmental resources protected under other federal statutes;”
- **Factor 4** – “It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;”
- **Factor 5** – “It causes other unique problems or unusual factors; or”
- **Factor 6** – “It involves multiple factors in one through five above, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.”



The following subsections evaluate the No Build Alternative and other potential location alternatives, alternative actions, alignment shifts, and design changes using these feasible and prudent factors. In each case, a discussion of the relevant issues for each alternative is provided and the applicable factor(s) are applied. For some alternatives, the issues relate to a single factor; for other alternatives, multiple factors apply. To be considered a feasible and prudent avoidance alternative as defined by Section 4(f), an alternative has to be assessed as being both feasible from the standpoint of buildability and prudent in terms of achieving the purpose and need while having no severe or extraordinary impacts related to safety the natural and built environments and cost. An avoidance alternative that fails one of the feasible and prudent tests is not a viable avoidance alternative in terms of Section 4(f).

The results of the evaluations in the following subsections are that the No Build Alternative and other potential location alternatives, alternative actions, alignment shifts, and design changes are not feasible and prudent avoidance alternatives.

4.5.2 No Build Alternative

As described in Sections 2.3.1 and 4.4.1, the No Build Alternative represents the existing transportation system, along with committed improvement projects that are programmed for funding. These improvements are represented in the federally approved 2017-2021 STIP. The 2018-2022 Five-Year Transportation Facilities Construction Program identified several capacity improvements that are in the STIP and are programmed and funded for construction on the interstate and state highway system within the Study Area by 2022.

The No Build Alternative is expected to avoid the potential use of Section 4(f) properties. However, the No Build Alternative is not a prudent avoidance alternative under Factor 1. Specifically, the No Build Alternative would not meet the Project purpose and need. The No Build Alternative would not achieve the Project purpose and need as it would not provide a high priority, high capacity, access-controlled transportation corridor; would not support improved regional mobility for people, goods and Homeland Security; would not connect metropolitan areas and markets in the Intermountain West with Mexico and Canada; and would not enhance access to the high capacity transportation network to support economic vitality. For these reasons, the No Build Alternative is not a feasible and prudent avoidance alternative (Factor 1).

4.5.3 Location Alternatives

Use existing non-road transportation corridors – Portions of the various Build Corridor Alternatives are aligned along and within existing highway corridors such as I-19 and I-10, portions of which parallel but are not within existing BNSF and Union Pacific freight railroad ROW. During the alternatives development and screening process, described in Draft Tier 1 EIS Section 2.1, portions of the various Build Corridor Alternatives were aligned adjacent to and parallel with linear transportation and utility uses (roadway, railroad and power line corridors) where possible to minimize impacts. During the Tier 1 EIS scoping and Alternative Selection Report phases, the railroads did not communicate interest or need in sharing existing or new corridors with the Project because of ample existing capacity in their networks and their desires to retain their ROW for potential future expansion, which is sufficient to meet their needs in the foreseeable future. Using existing railroad corridors for the I-11 corridor would negatively impact the existing and future operations of the railroads by limiting their future options. ADOT would have to acquire additional ROW to accommodate both ADOT's Project needs and those of the railroads, thereby eliminating the potential benefit of using an existing transportation corridor. As



existing railroad corridors in the Study Area pass through developed areas and alongside existing roadways, potentially severe impacts could result from property acquisitions, displacements and community disruption. For these reasons, future I-11 alignments would not be aligned within existing railroad ROW. FHWA determined that while use of existing freight railroad corridors may be potentially feasible from an engineering perspective, it is not prudent in light of potentially severe social and community impacts (Factor 3). Therefore, using existing non-road transportation corridors is not a feasible and prudent avoidance alternative.

Use existing roadway corridors – Also during the alternatives development process, FHWA and ADOT examined the potential to align the Project within existing Study Area roadways. Potential use of existing roadway corridors was considered early in the project development process when a long list of many potential alignments was examined by FHWA using the feasible and prudent test. Draft Tier 1 EIS Chapter 2.1 summarizes the findings of the screening process, which eliminated potential corridors that either could not be built as a practical matter (infeasible) or had one or more other circumstances that made continued consideration of a corridor not reasonable. In this Draft Preliminary Section 4(f) Evaluation, these results indicate that none of the potential corridors eliminated during the alternatives development process would be both feasible and prudent. Specifically, potential corridors that were assessed as not able to be built as a matter of sound judgment are not feasible. Other potential corridors would not achieve the Project purpose and need and/or would have one or more engineering, environmental, or cost impacts of extraordinary magnitude (Factors 1 through 6).

Tunneling – Placing portions of the proposed Project in a tunnel was considered in the property-specific avoidance analysis (Section 4.4.3) as a means to avoid potential impacts to clusters of properties and Historic Districts. FHWA determined that tunneling could result in a use of one or more Section 4(f) properties and, therefore, is not an avoidance alternative. However, even if a way of avoiding use of Section 4(f) properties were to be found, the cost estimate for placing I-11 in a tunnel in Downtown Tucson is approximately \$3.5 to \$5.1 billion, compared to \$240 million for the at-grade concept and \$1 billion for the elevated concept. The extraordinary cost for tunneling indicates that, while tunneling may be feasible, it is not prudent (Avoidance Analysis Factor 4).

Elevated Structures – Elevating I-11 in Downtown Tucson to avoid impacting Section 4(f) properties was considered in the property-specific avoidance analysis (Section 4.4.3.2 and 4.4.3.3). Although the elevated lanes could avoid direct impacts on adjacent Section 4(f) properties, noise and visual impacts would result in adverse effects to historic buildings and structures. Deep excavations for the elevated structure foundations would impact archaeological resources. For these reasons, an elevated lanes alternative through Downtown Tucson is not an avoidance alternative. The elevated alternative also would impact businesses and residences that are not protected by Section 4(f) and would add \$1 billion to the overall capital cost of the Orange Alternative.

4.5.4 Alternative Actions

Use existing facilities –Public input during scoping identified preferences for improving existing freeways and interstates as well as constructing I-11 as a separate, new facility, in part because of recognized congestion problems on existing highways. FHWA and ADOT developed and evaluated alternatives that co-located I-11 with existing transportation facilities, such as I-8, I-10, I-19, SR 85 and SR 93. By 2040, traffic operations on both urban and rural segments of I-10 would deteriorate due to the increased travel demand in the Study Area. For example, the segment of I-10 between Casa Grande and the southern edge of the Phoenix metropolitan area



1 is projected to operate at LOS C to LOS F in 2040. The Tucson to Casa Grande segment also
2 would experience an increase in traffic congestion, with LOS ranging from LOS C to LOS F by
3 2040. These projected levels of service are at the poor end of the traffic flow condition scale (as
4 illustrated on Figure 1-6) and indicate expected delays and the need for transportation
5 improvements to increase travel efficiency.

6 In addition, and as documented in the I-11 *Alternatives Selection Report*, some existing non-
7 access controlled, arterial roadways, such as the Sun Valley Parkway, were initially considered
8 for co-locating I-11. However, these roadways are typically surrounded by built, under
9 construction or entitled properties, making it challenging to overlay an access-controlled freeway
10 on a functioning arterial with limited future expansion opportunities. An overlay would have to
11 provide for both the arterial and I-11, causing severe disruption (such as a relatively high
12 number of property impacts and displacements of residences and businesses) of the adjacent,
13 urban environment that would be difficult to mitigate. By comparison and as described in Tier 1
14 Tier 1 Draft EIS Section 3.2, Land Use, and Section 3.5, Community Impacts and Environmental
15 Justice, new corridor alignments (Green and Purple) are in areas that are less dense than the
16 Orange Corridor Alternative. The Orange Corridor Alternative would impact dense, established
17 communities in downtown Tucson. The Green and Purple Corridor Alternatives would impact
18 fewer properties and require fewer displacements than the Orange Build Corridor Alternative.

19 **Alternative modes** – Between Nogales and Phoenix, goods are moved by freight railroad as
20 well as on-road trucking to local and regional destinations. The type of mode by which goods
21 are shipped depends on a combination of several logistical factors, the distance of transport, the
22 types of freight and the destinations. BNSF Railroad and Union Pacific Railroad operate freight
23 railroad service, transporting goods locally and regionally. During FHWA's and ADOT's outreach
24 to the railroads, BNSF and Union Pacific indicated no specific expansion plans related to the
25 foreseeable growth in freight movement as described in Draft Tier 1 EIS Chapter 2. In contrast,
26 on-road trucking is a growth industry in the Study Area. This is because of a combination of the
27 long-haul nature of the freight movements, the types and variety of freight that are suited to
28 truck transport as opposed to rail transport (such as fresh produce), connections to Mexico
29 through the Mariposa Port of Entry, and the many destinations for that truck freight. As a result,
30 FHWA determined that while using freight rail as an alternative mode may be potentially
31 feasible, using the freight rail mode as an alternative to the proposed Project would not address
32 the logistical needs of moving the freight that is moved by trucks now and into the foreseeable
33 future. For this reason, the freight rail service mode would not achieve the purpose and need
34 and is not prudent (Factor 1).

35 As the Build Corridor Alternatives also would transport people, FHWA and ADOT considered
36 the ability for existing and planned passenger transit and rail service modes. As described in
37 Chapter 2, existing passenger transport between Nogales and Wickenburg, and on to Las
38 Vegas, is provided by private bus companies. The FRA and ADOT recently completed a Tier 1
39 NEPA process for a proposed passenger rail service between Tucson and Phoenix. Known as
40 the Arizona Passenger Rail Corridor Study, the Final Tier 1 EIS and ROD identified a corridor
41 for further study. This proposed Project, in combination with existing bus services, would
42 address portions of non-freight travel that will occur between Tucson and Phoenix, and future
43 connections north of Phoenix, but would not address foreseeable future freight transport. For
44 this reason, the passenger rail service mode would not achieve the purpose and need and is not
45 prudent (Factor 1).



4.6 Least Harm Analysis

In accordance with 23 CFR 774.3(2)(c), if the determination is made that there is no feasible and prudent avoidance alternative, FHWA may approve only the alternative that causes the least overall harm in light of the preservation purpose of Section 4(f). To preliminarily select the alternative with the least overall harm, FHWA evaluated the Purple, Green and Orange Alternatives presented in this Draft Preliminary Section 4(f) Evaluation. In addition, FHWA considered the Purple, Green, and Orange Build Alternatives with portions of the corridor in a tunnel and elevated structures to minimize uses of Section 4(f) properties. As well, FHWA evaluated a Recommended Build Corridor Alternative that was developed as a result of the technical analyses in the Tier 1 EIS and input received from agencies, tribes and the public.

The Recommended Build Corridor Alternative, which is presented in Chapter 6 of the Draft Tier 1 EIS and is shown in **Figure 4-31**, consists of the elements of the Build Corridor Alternatives that, together, would best achieve the purpose and need while avoiding or minimizing impacts on the natural and built environment. The components of the Recommended Alternative are listed in **Table 4-6**.

Table 4-6 Recommended Alternative

Option	Build Corridor Alternative	Description
A	Common to All Build Corridor Alternatives	Co-located with I-10 and I-19.
D, with Central Arizona Project (CAP) Design Option	Green Alternative	Utilizes CAP Design Option, that parallels the CAP, which was an option under either the Purple or Green Alternatives. Includes interconnection between D and F to I-10 from Option C.
F	Green Alternative	New corridor west of I-10, connects to I-8 and extends north along Chuichu Road.
I2	Common to Purple and Green Alternatives	Extends west along Barns Road, then northwest towards Goodyear.
L	Common to Purple and Green Alternatives	New corridor paralleling the Sonoran Desert National Monument; co-located with a portion of the proposed Hassayampa Freeway.
N	Purple Alternative	New corridor follows proposed SR 303L south extension and proposed SR 30 west (from SR 303L to SR 85).
R	Common to Purple and Green Alternatives	New corridor crosses SR 85 and veers north to intersect I-10 at 363 rd Avenue.
U	Green Alternative	Option U from I-10 to a point just south of Vulture Mountains Recreation Management Zone (RMZ).
X	Purple Alternative	Follows an existing transmission line corridor through the Vulture Mountains RMZ to US 93.

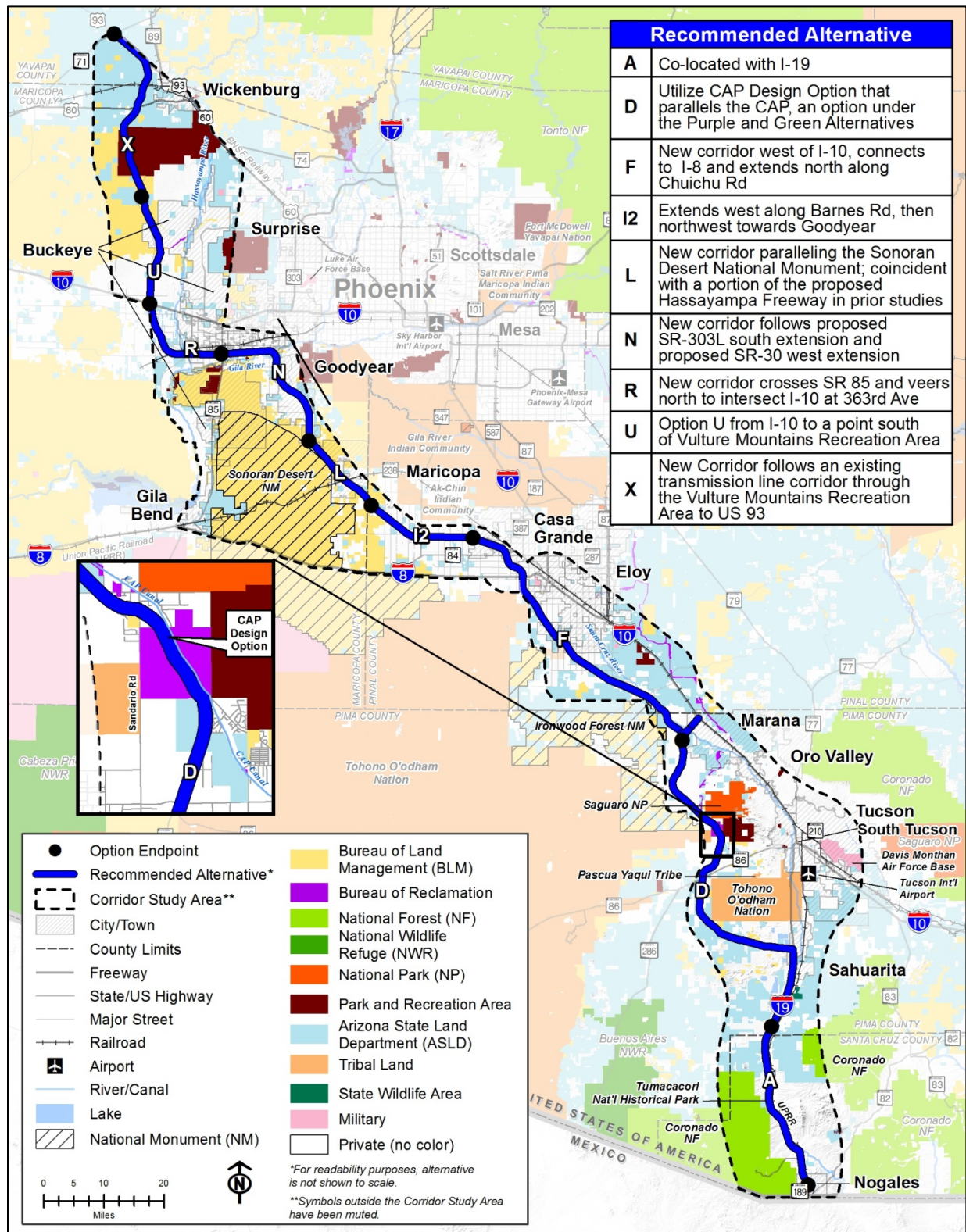


Figure 4-31 Recommended Build Corridor Alternative



FHWA's least overall harm analysis complies with the methodology outlined in 23 CFR § 774.3(c)(1)). The Section 4(f) regulations require balancing the seven factors (listed in Section 4.2.4) when determining which alternative would cause the least overall harm.

FHWA applied each of the seven key factors to the Build Corridor Alternatives as outlined below.

Factor 1 – Ability to mitigate adverse impacts on each Section 4(f) property

The ability to mitigate impacts on Section 4(f) properties was measured by comparing each Build Corridor Alternative in terms of the potential types of uses. **Table 4-7** summarizes the potential types uses of Section 4(f) properties by the Build Corridor Alternatives, with and without portions in tunnel. The table summarizes the proposed mitigation strategies and severity of remaining harm to Section 4(f) properties.

The Purple, Green, and Recommended Build Corridor Alternatives would provide new transportation facilities on or across the TMC property, requiring mitigation to address impacts to the protected activities of the TMC property: wildlife movements and connectivity. In coordination with Reclamation and as described in Section 4.4.3.3, FHWA and ADOT propose to provide wildlife crossings that are aligned with the CAP siphons. These and additional mitigation measures have been developed in coordination with Reclamation and the TMC managing partners to protect and enhance wildlife movements and connectivity. FHWA proposes a Net Benefit to Section 4(f) property programmatic evaluation for the Purple, Green and Recommended Build Corridor Alternatives on the TMC property, provided that the project with mitigation commitments can achieve overall enhancement of the TMC compared to existing conditions.

The Green and Orange Alternatives would co-locate I-11 on SR 85 near the Robbins Butte Wildlife Area. Based on preliminary analysis, the Project could fit within the existing SR 85 ROW resulting in no use or a *de minimis* determination as allowed by 23 CFR 774.7(e)(1).



Table 4-7 Summary of Potential Section 4(f) Uses by Build Corridor Alternative

Alternative	Potential Uses of Section 4(f) Properties	Ability to Mitigate Adverse Impacts to Section 4(f) Properties	Severity of Remaining Harm to Section 4(f) Properties
Purple with CAP Design Option	TMC: new linear surface structure (highway alignment) across TMC property; impact to wildlife movements and connectivity	TMC: The CAP Design Option with additional mitigation strategies could result in a net benefit. Options such as tunneling and elevating I-11 over the TMC may mitigate impacts but would not result in a net benefit.	TMC Goal: Achieve a net benefit to wildlife connectivity for the TMC compared to existing conditions.
Green Alternative with CAP Design Option	TMC: new linear surface structure (highway alignment) across TMC property; impact to wildlife movements and connectivity Robbins Butte: No use or <i>de minimis</i> use	TMC: The CAP Design Option with additional mitigation strategies could result in a net benefit. Options such as tunneling and elevating I-11 over the TMC may mitigate impacts but would not result in a net benefit. Robbins Butte: Design goal is to accommodate I-11 cross-section in existing SR 85 ROW	TMC Goal: Achieve a net benefit to wildlife connectivity for the TMC compared to existing conditions. Robbins Butte: No use or <i>de minimis</i> use
Orange Alternative	Downtown Tucson: There are seven Section 4(f) properties that fall within 120' of either side of I-10. I-11 would expand the ROW 60 feet of either side, or 120 feet on one side or the other. There are 7 properties at risk, but a smaller number would be impacted. Robbins Butte: No use or <i>de minimis</i> use	Downtown Tucson: Low potential to mitigate impacts. Elevating the new I-11 lanes would adversely affect Section 4(f) properties. Tunneling the new I-11 lanes would impact underground archaeological resources and is not prudent due to cost. Robbins Butte: Design goal is to accommodate I-11 cross-section in existing SR 85 ROW	Downtown Tucson: Seven Section 4(f) properties are at risk of being impacted. Tunneling would not be prudent due to cost. Elevating could minimize harm, but noise and visual impacts would result in a use of the historic buildings and structures. Robbins Butte: No use or <i>de minimis</i> use
Recommended Alternative (includes the CAP Design Option)	TMC: new linear surface structure (highway alignment) across TMC property; impact to wildlife movements and connectivity	TMC: The CAP Design Option with additional mitigation strategies could result in a net benefit. Options such as tunneling and elevating I-11 over the TMC may mitigate impacts but would not result in a net benefit.	TMC Goal: Achieve a net benefit to wildlife connectivity for the TMC compared to existing conditions.



In downtown Tucson, the Orange Alternative would expand I-10 from 8 lanes to 12 to 14 lanes, depending on location, from the I-19 interchange to Prince Road. The Orange Alternative would require an estimated 120 feet of additional ROW. The 120 feet could be on either side of the existing I-10 ROW, all on the east side of I-10, or all on the west side of I-10. In Downtown Tucson, I-10 is surrounded by dense, established historic communities. Properties protected by Section 4(f) are in close proximity to one another and to I-10, as shown on **Figure 4-29** (Downtown Tucson Section 4(f) Properties – Orange Alternative). It is not possible to widen I-10 without impacting Section 4(f) properties.

The Orange Alternative could potentially impact (use) seven properties protected by Section 4(f) as shown on **Figure 4-29** (Downtown Tucson Section 4(f) Properties – Orange Alternative) and **Table 4-5** (Summary of Use by Build Corridor Alternatives). The seven Section 4(f) properties are:

- Barrio El Membrillo Historic District
- Barrio Anita Historic District
- Levi H. Manning House
- David G. Herrera and Ramon Quiroz Park (formerly Oury Park)
- El Paso and Southwestern Railroad District
- Santa Cruz River Park
- El Paso and Southwestern Greenway (existing trail)

FHWA proposes individual use findings for potential uses of Downtown Tucson properties as the project could impact the protected activities and features of the properties: recreation and historic significance. There is a low ability to mitigate the impacts of the Orange Alternative.

FHWA and ADOT propose a programmatic net benefit for use of the TMC property. The Recommended Alternative is the only alternative for which use of a Section 4(f) property could result in a beneficial outcome for the property.

Factor 2 – Relative severity of the remaining harm, after mitigation

As indicated in **Table 4-7** (Summary of Potential Section 4(f) Uses by Build Corridor Alternative) and described for Factor 1, FHWA and ADOT will be required to provide specific mitigation in order to achieve the potential types of uses presented in the table. By achieving the programmatic net benefit finding, the Purple, Green, and Recommended Alternatives would substantially reduce and possibly eliminate remaining harm to the TMC property.

Similarly, by achieving no use or a *de minimis* impact finding, the Green Alternative also would substantially reduce and possibly eliminate remaining harm to Robbins Butte Wildlife Area.

In contrast, the Orange Alternative could potentially impact Section 4(f) properties in downtown Tucson. There are 7 Section 4(f) properties that fall within 120' of either side of I-10. I-11 would expand the ROW 60 feet of either side, or 120 feet on one side or the other. There are 7 properties at risk, but a smaller number would be impacted. Individual use findings for the Orange Alternative would reduce remaining harm to the Downtown Tucson properties, but may not eliminate remaining harm. For example, potential uses that involve impacts to or demolition of one or more historic structures can be mitigated by documenting the resources, but



documentation would not fully compensate for the impacts to or losses of the structures and would still be an adverse effect.

Factor 3 – Relative significance of each Section 4(f) property

FHWA considers each Section 4(f) property to be equally significant in this evaluation; none of the properties has been determined through this evaluation or through coordination with officials with jurisdiction to be of different value.

Factor 4 – Views of the officials with jurisdiction over each Section 4(f) property

FHWA and ADOT coordinated with officials with jurisdiction over Section 4(f) properties partly or entirely within the Purple, Green, and Recommended Alternatives, leading to specific commitments to avoid use of Section 4(f) properties (Section 4.4.2) or satisfy the criteria for a Nationwide Programmatic Section 4(f) Evaluation (Net Benefit) finding.

FHWA and ADOT initiated coordination with SHPO about the downtown Tucson properties during the EIS scoping process. SHPO concurred that the Orange Alternative would have adverse effects to multiple historic and Section 4(f) properties (FHWA letter dated November 12, 2018 with concurrences from SHPO on November 23, 2018 and December 18, 2018). If the Orange Alternative is selected, FHWA will further evaluate the potential for use of Section 4(f) properties in downtown Tucson, coordinate with officials with jurisdiction, and prepare a final Section 4(f) Evaluation for the downtown Tucson properties during the Tier 2 analysis.

Reclamation is the official with jurisdiction over the TMC. FHWA and ADOT worked with Reclamation to develop the CAP Design Option. Reclamation requested FHWA and ADOT follow a prescribed process to identify, evaluate, and implement mitigation measures. Reclamation indicated that if this process is followed, they believe a net benefit could be achieved. Pending additional study and consultation, Reclamation would provide concurrence on a final net benefit programmatic determination during Tier 2. Reclamation stated in their letter of June 8, 2018, co-alignment of the I-11, Sandario Road, and CAP canal crossings will provide the benefit of encouraging and enhancing conditions for wildlife movements across the TMC.

Robins Butte is land is preserved and managed for wildlife and wildlife habitat by the Arizona Game and Fish Department (AGFD). The preserved wildlife habitats are the features, attributes, or activities that qualify the property for protection under Section 4(f). The Green and Orange Alternatives are aligned along SR 85 at the Gila River Crossing. Preliminary analysis indicates the existing SR 85 ROW (**Appendix E1**) is wide enough to accommodate the proposed I-11 highway cross-section. Based on the preliminary analysis, it will be possible for FHWA to make a finding of no use or, at most, a finding of *de minimis* use for this property after consultation with the official with jurisdiction.

Factor 5 – Degree to which each alternative meets the purpose and need for the project

The elements of the project purpose and need are:

1. Provides access to planned growth areas;
2. Reduces travel time for long-distance traffic and achieves level of service (LOS) C or better in rural areas, and LOS D or better in urban areas (Tucson) on I-11;
3. Effectively attracts/diverts traffic from exiting roadways, as measured by percent increase in vehicle miles traveled (VMT) in the study area compared to the No Build Alternative, or



- 1 percent increase in truck VMT in the study area compared to the No Build Alternative;
- 2 4. Serves key economic centers, as measured by the number of economic activity centers
- 3 served; and
- 4 5. Provides an alternate regional route to an existing interstate route.

5 **Table 6-1 in Chapter 6** summarizes how well each alternative meets the purpose and need for
6 the project. The Purpose and Need is a fundamental part of the NEPA process and was a key
7 component in identifying the Recommended Corridor Alternative. Because each of the three
8 Build Corridor Alternatives perform differently and result in both beneficial and adverse effects,
9 the Recommended Alternative is a hybrid of the three Build Alternatives, combining segments
10 from each that best meet the Purpose and Need while reducing the potential for adverse
11 impacts. The Recommended Corridor Alternative is primarily comprised of the Purple and
12 Green Alternatives.

- 13 • The Purple Alternative best serves the greatest areas of population and employment growth
14 within the Study Area, which is expected in Pinal and western Maricopa counties (Casa
15 Grande, Goodyear, Buckeye, and Wickenburg). It reduces 2040 travel time between
16 Nogales and Wickenburg by 54 minutes compared to the No Build Alternative (243 minutes
17 vs 297 minutes) and achieves a LOS C or better on I-11. Modeling for 2040 conditions
18 suggests that the Purple Alternative could attract the highest increase in automobile and
19 truck VMT over the No Build Alternative. It effectively attracts/diverts traffic from existing
20 roadways, with a 5.4 percent increase in combined passenger vehicle and truck VMT and
21 21.3 percent increase in truck VMT compared to the No Build Alternative. It serves 7 existing
22 and 7 planned economic activity centers. Seven of the nine segments that comprise the
23 Purple Alternative provide an alternate regional route, with the exceptions being Option A
24 between Nogales and Sahuarita and Option G through Marana.
- 25 • The Green Alternative serves anticipated growth well but does not provide as much access
26 to western Maricopa County (Goodyear and State Route 303 area) as the Purple
27 Alternative. At 60 minutes travel time savings, it achieves the highest 2040 travel time
28 savings between Nogales and Wickenburg (237 minutes total travel time) compared to the
29 No Build Alternative (297 minutes). Similar to the Purple Alternative, it achieves LOS C or
30 better on I-11. It effectively attracts/diverts traffic from existing roadways, with a 4.0 percent
31 increase in combined passenger vehicle and truck VMT and 15.9 percent increase in truck
32 VMT compared to the No Build Alternative. It serves 6 existing and 4 emerging economic
33 activity centers. Eight of the nine segments that comprise the Green Alternative provide an
34 alternate regional route, with the exceptions being Option A between Nogales and
35 Sahuarita.
- 36 • The Orange Alternative best responds to continued population and employment growth in
37 the South Section; however, less growth is anticipated in the Tucson urbanized area
38 compared to other portions of the Study Area. The Orange Alternative reduces the 2040
39 travel time from Nogales to Wickenburg by 31 minutes, providing the longest end-to-end
40 2040 travel time primarily because it has the longest travel distance of the three Build
41 Corridor Alternatives. It achieves LOS C in rural areas outside of Tucson, and LOS D on I-11
42 in the Tucson urban area, requiring additional capacity on some highway segments in order
43 to achieve those levels of service. The Orange Alternative provides the lowest increase in
44 auto and truck VMT over the No Build Alternative. It serves 8 existing and 7 emerging
45 economic activity centers, performing similarly to the Purple Alternative because most
46 existing and several emerging centers are located along the I-10 corridor. However,
47 continued growth and congestion on existing interstate facilities could eventually hinder



accessibility. The Orange Alternative provides an alternate regional route on only 1 of its 9 segments; in the North Section, all Build Corridor Alternatives represent a new interstate corridor.

- The Recommended Build Corridor Alternative performs similarly to Purple and Green Alternatives in meeting the I-11 Purpose and Need.

Factor 6 – The magnitude of adverse impacts on properties not protected by Section 4(f)

Each Build Corridor Alternative has the potential for adverse impacts on properties not protected by Section 4(f). The relative magnitude of adverse impacts on the natural and built environment is summarized as follows:

Purple Build Corridor Alternative:

- Crosses wildlife linkage in Avra Valley outside of the TMC, potentially increasing species isolation
- Potential to impact Three Points and Picture Rocks communities
- Mostly low to moderate potential for impacts to archaeological sites
- High potential to impact endangered Pima pineapple cactus and its habitat
- Potential noise impacts to surrounding area
- New Gila River crossing could impact sensitive riparian habitat, threatened and endangered species, and an Important Bird Area
- Potential for light pollution due to introduction of new facility in undeveloped areas

Green Build Corridor Alternative:

- Crosses wildlife linkage in Avra Valley outside of the TMC, potentially increasing species isolation
- Potential to impact Three Points and Picture Rocks communities
- Mostly low to moderate potential for impacts to archaeological sites
- High potential to impact endangered Pima pineapple cactus and its habitat
- Potential noise impacts to surrounding area
- Parallel to riparian habitat and wildlife linkage along Santa Cruz River
- Crosses Santa Cruz 100-year floodplain
- Potential for light pollution due to introduction of new light sources along new corridors in undeveloped areas
- Existing Gila River crossing on SR 85 would be modified to accommodate I-11 co-location. Modified Gila River crossing is in sensitive riparian habitat, potentially affecting threatened and endangered species. This also is an Important Bird Area.

Orange Build Corridor Alternative:

- Impacts Tucson neighborhoods and businesses
- High potential for impacts to archaeological sites



- Existing Gila River crossing on SR 85 would be modified to accommodate I-11 co-location. This is in sensitive riparian habitat, potentially affecting threatened and endangered species. It also is an Important Bird Area.

- New corridor from Buckeye to Wickenburg may have potential for light pollution and noise impacts.

Each Build Corridor Alternative has the potential for adverse impacts on properties not protected by Section 4(f). The relative magnitude of adverse impacts on the natural and built environment is summarized below. FHWA and ADOT identified a Recommended Alternative that best meets the I-11 Purpose and Need while minimizing the potential for adverse impacts. The Recommended Alternative is based primarily on the Purple and Green Alternatives, but it is a hybrid alignment (i.e., a combination of Corridor Options from the Build Corridor Alternatives) to reduce or avoid adverse effects.

Factor 7 – Substantial differences in costs among the alternatives

The capital cost estimates for each Build Corridor Alternative are shown in **Table 4-8** (Preliminary Cost Estimates for Build Corridor Alternatives).

Capital costs were developed to compare the alternatives using 2017 dollars, and include ROW acquisition, materials, and construction. In addition, operations and maintenance costs were developed for each Build Corridor Alternative. The Orange Alternative (approximately \$3.1 billion) is substantially less costly to build than the Green or Purple Alternatives (approximately \$7.3 billion and \$6.4 billion, respectively) because the Orange Alternative would use the most existing highway ROW and expand the most linear miles of existing highway infrastructure compared to the Purple and Green Alternatives that would require construction of more new highway infrastructure in new locations.

Annual operations and maintenance (O&M) costs for each Build Corridor Alternative also are shown in **Table 4-8** (Preliminary Cost Estimates for Build Corridor Alternatives). O&M costs were estimates using ADOT's latest fiscal year data for interstate highway maintenance cost per lane mile. .

Table 4-8 Preliminary Cost Estimates for Build Corridor Alternatives

Alternative	Capital Cost (Billions)	Operations and Maintenance Cost (Millions)
Purple Alternative	\$6.4	\$23.1
Green Alternative	\$7.3	\$20.9
Orange Alternative	\$3.1	\$31.2
Recommended Alternative	\$7.6	\$23.1



Alternative with the Least Harm

The least overall harm assessment examined the Build Corridor Alternatives evaluated in the Draft Tier 1 EIS and preliminarily determined that the Recommended Build Corridor Alternative would have the least overall harm to Section 4(f) properties for the following reasons:

- Proposed net benefit to one Section 4(f) property (TMC);
- Best meets the Project purpose and need while reducing the potential for adverse impacts.

All of the Build Corridor Alternatives considered in this Draft Tier 1 EIS would result in adverse impacts, so potential mitigation strategies were considered. While use of existing corridors would minimize new disturbances to environmental resources, all of the Build Corridor Alternatives would still require additional capacity on I-10 to accommodate the I-11 facility. This would result in unmitigable impacts on historic districts, archaeological resources, and the communities in Downtown Tucson.

4.7 All Planning to Minimize Harm

Throughout alternatives and Draft Tier 1 EIS development, FHWA and ADOT applied the following strategies to minimize or mitigate impacts to Section 4(f) properties:

- Co-located corridors with existing transportation corridors where reasonably feasible to keep additional ROW needs to a minimum;
- Refined corridors to avoid or minimize potential use of Section 4(f) properties (Sections 4.4.2 and 4.4.3);
- Coordinated with officials with jurisdiction over Section 4(f) properties to identify such properties early in alternatives development, determine plans for the properties by officials with jurisdiction and discuss the potential for Project impacts on those properties (see Section 4.8); committed to continued coordination during Tier 2 studies;
- Organized and conducted focus group meetings utilizing the United States Institute for Environmental Conflict Resolution (The Udall Foundation);
- Sought input from stakeholders and the public regarding the effects of the Build Alternatives on Section 4(f) properties and other resources; and
- Considered input from officials with jurisdiction, stakeholders and the public in the NEPA analyses and Section 4(f) Evaluation.

In addition, through coordination with officials with jurisdiction and the Draft Preliminary Section 4(f) Evaluation, FHWA and ADOT made the following commitments as part of the proposed project and identified the following actions to be undertaken in Tier 2:

- Commitments to avoid the use of specific properties that are partly or entirely within the Build Corridor Alternatives as described in Sections 4.4.2 and 4.4.3; the properties can be avoided by accommodation, shifting the corridor or grade-separating the corridor.
- Commitment to including the CAP Design Option in the Project if the Purple, Green, or Recommended Alternative is selected (Section 4.4.3);
- Commitment to undertake wildlife studies regarding the TMC property prior to Tier 2 if the Purple, Green, or Recommended Alternative is selected (Section 4.4.3);



- Commitment to coordinate with Reclamation, NPS, AZGF, and Pima County regarding access control design and securing additional wildlife corridors if a Build Corridor Alternative is selected that is aligned through the Avra Valley;
- Commitment to coordinate with CAWCD and the Reclamation on the applicable design standards in future Project phases if the Purple or Green Alternative is selected (Section 4.4.3);
- In Tier 2, evaluate the potential use and avoidance of Section 4(f) properties in Downtown Tucson if the Orange Alternative is selected (Section 4.4.3);
- In Tier 2, apply the design shifts to avoid Anamax and Palo Verde Regional Parks (Section 4.4.2);
- In Tier 2, grade-separate I-11 to avoid linear Section 4(f) properties that are identified in this Draft Preliminary Section 4(f) Evaluation (Section 4.4.2);
- Continue coordinating with officials with jurisdiction over Section 4(f) properties; and
- Continue considering ways to avoid use of Section 4(f) properties through engineering design and mitigation.

Following publication of the Draft Tier 1 EIS and the EIS public comment period, FHWA will prepare a Final Tier 1 EIS, which will identify a Preferred Alternative. At that time, FHWA and ADOT commit that the decisions made in Tier 1 involving the selected Build Corridor Alternative will not preclude opportunities to minimize harm to Section 4(f) properties in Tier 2.

FHWA and ADOT will continue coordinating with officials with jurisdiction in Tier 2 regarding potential impacts to Section 4(f) properties. Where impacts to Section 4(f) properties potentially would occur, coordination will focus on identifying appropriate and reasonable minimization and mitigation strategies to address impacts.

4.8 Coordination

FHWA and ADOT initiated pre-scoping coordination with federal, state, and local officials with jurisdiction in spring 2016 as part of preparing for the NEPA process. FHWA and ADOT met periodically with officials to share I-11 project information and seek input. **Table 4-9** (Summary of Comments from Officials with Jurisdiction over Section 4(f) Properties) lists the officials with jurisdiction over the Section 4(f) properties identified in this chapter, and summarizes the comments each official provided during coordination activities that are relevant to Section 4(f). Correspondence from officials with jurisdiction that is relevant to the Section 4(f) Evaluation is provided in **Appendix F** of this Draft Tier 1 EIS. The dialogue between FHWA, ADOT and the officials with jurisdiction was used in this Draft Preliminary Section 4(f) Evaluation to identify properties that are protected by Section 4(f), assess potential use of the properties by the Build Alternatives, determine potential means to avoid or minimize potential use of Section 4(f)-protected properties, and generally identify measures to minimize harm.

FHWA considered the input from officials with jurisdiction in the development and refinement of the Build Corridor Alternatives. For example, and as described in Section 4.4.3, FHWA and ADOT worked with Reclamation to align the Purple and Green Alternatives alongside the CAP canal on the TMC property as well as relocate and co-align Sandario Road with I-11. By relocating Sandario Road, co-aligning Sandario Road and I-11 alongside the CAP canal, and co-aligning wildlife crossing areas, the barrier effect formed by existing Sandario Road would be



1 removed. Reclamation supports this mitigation measure as it would have the beneficial effect of
2 removing the barrier effect caused by existing Sandario Road, thereby encouraging and
3 enhancing conditions for wildlife movements across the TMC. Furthermore, Reclamation
4 supports this mitigation measure, as it will consolidate the I-11/CAP canal infrastructure in one
5 location and reduce the potential barrier effect I-11 could cause on the TMC property. As stated
6 in their letter of June 8, 2018, co-alignment of the I-11, Sandario Road, and CAP canal
7 crossings will provide the benefit of encouraging and enhancing conditions for wildlife
8 movements across the TMC.

9 FHWA and ADOT anticipate coordinating with other officials with jurisdiction over Section 4(f)
10 properties where a project use has been identified in this evaluation. Such coordination will
11 occur during the Final Tier 1 EIS and during Tier 2 study. Coordination will focus on examining
12 ways to avoid or minimize uses of the Section 4(f) properties, and on identifying appropriate
13 mitigation.

14 This coordination activity will enable FHWA to make determinations of potential use and
15 complete the Final Section 4(f) Evaluation as required to satisfy the requirements of Section 4(f)
16 during Tier 1. During Tier 2, coordination activity will enable FHWA to make project-level
17 determinations of use and complete Draft and Final Section 4(f) Evaluations.



Table 4-9 Summary of Comments from Officials with Jurisdiction Over Section 4(f) Properties

Agency/Entity	Comment Date (Context)	Summary of Comments Related to Section 4(f) Properties
Federal Agencies		
NPS	March 14-15, 2016	<ul style="list-style-type: none">NPS comments on concerns related to SNP.
	April 8, 2016 (CA Meeting)	<ul style="list-style-type: none">Concerned with I-11 on west side of SNP; possible impairment due to designated wilderness, night sky, noise levels, fragmentation, impairment of wildlife movements.Potential impacts to the Anza Recreation Trail, Anza Auto Tour Route.Potential impacts to numerous historic and archaeological sites (named).
	June 15, 2016	<ul style="list-style-type: none">Acceptance letter to become a Cooperating Agency.Expressed concern for all National Parks and National Monuments within the Project Area for I-11.
	July 11, 2016	<ul style="list-style-type: none">Comments on the Notice of Intent (NOI) regarding encroachment on SNP through a Corridor Option bisecting Avra Valley which will be built with the intention of being a multiuse corridor. Irreparable damage to the park and surrounding area for future generations may occur.Other concerns include the Juan Bautista de Anza National Historic Trail and various National Historic Landmarks.
	June 2, 2017	<ul style="list-style-type: none">Expectation of severe and widespread impacts of Project on SNP and Saguaro Wilderness due to alignments through Avra Valley: plant and animal habitat fragmentation and loss, as well as proximity effects to air quality, noise, viewsheds, and night skies.Evaluate mitigation efficacy plan.
	August 31, 2017	<ul style="list-style-type: none">NPS comments on the Annotated Outline and Methodology Report.
	December 19, 2017	<ul style="list-style-type: none">Meeting notes discussing viewshed, noise, and air quality impacts to areas around the SNP.
	August 10, 2018	<ul style="list-style-type: none">Environmental and user experience impacts to SNP.
BLM	July 13, 2016 (CA Meeting)	<ul style="list-style-type: none">Project infrastructure would be incompatible with the national monument and wilderness designations (Sonoran Desert National Monument, Ironwood Forest National Monument, Anza National Historic Trail corridor).
	February 24, 2017	<ul style="list-style-type: none">Prefer alternatives west of Vulture Mountains RMZ, or in the VMRA multi-use corridor.VMRA is a Section 4(f).Alignment outside the multi-use corridor would require amending the Resource Management Plan for the property.
	May 12, 2017	<ul style="list-style-type: none">Avoid Vulture Mountains RMZ, Area of Critical Environmental Concern, wildlife habitat and other sensitive and natural resources in the area; co-location with power infrastructure in the designated multi-use corridor in the Cooperative Recreation Management Area could reduce impacts.



Table 4-9 Summary of Comments from Officials with Jurisdiction Over Section 4(f) Properties (Continued)

Agency/Entity	Comment Date (Context)	Summary of Comments Related to Section 4(f) Properties
BLM (Con't)	April 12, 2018	<ul style="list-style-type: none"> FHWA letter to BLM Hassayampa Field Office, Phoenix District regarding Vulture Mountains RMZ and the utilization of the multiuse corridor by the future I-11.
	September 7, 2018	<ul style="list-style-type: none"> Refer to BLM recreation feature as the Vulture Mountains RMZ instead of the Vulture Mountains Cooperative Management Recreation Area. Mitigate possible impacts to the race course.
Reclamation	April 20, 2016 (CA Meeting)	<ul style="list-style-type: none"> Alignment in TMC would contradict TMC goals of re-connecting wildlife habitat across the Avra Valley; language that established TMC will help determine if it qualifies as a Section 4(f) property. Barrier effect of the Project on wildlife connectivity despite recent investment in wildlife crossings of the CAP canal. Effect of Avra Valley alignment on Tumamoc Preserve lands that were set aside to preserve formerly designated endangered Tumamoc globeberry (<i>Tumamoca macdougallii</i>)
	July 8, 2016 (Scoping comments letter)	<ul style="list-style-type: none"> TMC is protected for preservation of wildlife habitat and movements. TMC is protected by Section 4(f) because it was acquired for mitigation purposes. Canal siphon crossings provide wildlife movement across the CAP canal. Concern that I-11 would fragment habitat and/or be a barrier to wildlife movement through the TMC or elsewhere in Avra Valley. Archaeological sites on the TMC. Globeberry habitat and individuals to be avoided. Concern for project-related noise and lighting impacts on wildlife connectivity. Concern for induced growth and development due to project in Avra Valley and the TMC.
	November 3, 2016 (CA Meeting)	<ul style="list-style-type: none"> Need to clarify language regarding the designation of the land associated with the TMC.
	September 18, 2017	<ul style="list-style-type: none"> On-going coordination to study I-11 Corridor Options in the vicinity of the TMC. Importance of maintaining already-established, well-used wildlife crossings near canal siphons. Noise concerns. Warrant for mitigation for loss of habitat. Effects on existing trails and future trail planning.
	March 5, 2018	<ul style="list-style-type: none"> Reclamation preference to align I-11 alongside CAP canal, matching wildlife crossings to existing canal siphon crossings) to maintain wildlife connectivity. Reclamation preference is to relocate Sandario Road to reduce barriers to wildlife movements. Potential for future environmental studies to identify wildlife corridors.



Table 4-9 Summary of Comments from Officials with Jurisdiction Over Section 4(f) Properties (Continued)

Agency/Entity	Comment Date (Context)	Summary of Comments Related to Section 4(f) Properties
Reclamation (Con't)	June 8, 2018	<ul style="list-style-type: none">Reclamation input and consultation on a Section 4(f) evaluation for the TMC.
	August 9, 2018	<ul style="list-style-type: none">Requirements to reach a net benefit for the TMC.
	October 18, 2018	<ul style="list-style-type: none">Preliminary concurrence with mitigation commitments to meet net benefit for TMC.Reclamation would provide final concurrent on net benefit during Tier 2.
US Fish and Wildlife Service	December 3, 2018	<ul style="list-style-type: none">The PLO 1015 lands are owned/administered by USFWS but managed by AGFD.The PLO 1015 lands are National Wildlife Refuge Act lands (special category of lands called "Coordination Areas").The AGFD parcels that are adjacent or near in furtherance of the DOI/AGFD Cooperative Agreement from 1954, clause #7 also are Wildlife Refuge lands.
	January 3, 2018	<ul style="list-style-type: none">Consultation email regarding findings of Section 4(f) constructive use evaluation of PLO 1015 lands.
State Agencies		
AGFD	July 8, 2016 (CA Meeting)	<ul style="list-style-type: none">General comment: agency is interested in habitat and wildlife connectivity.
	February 1, 2017 letter	<ul style="list-style-type: none">The Department provided a list of properties it owns or manages in the I-11 Study Area, along with a status of each.
	February 1, 2017 (letter)	<ul style="list-style-type: none">"The Department's position is that the publicly-owned portions of the Tucson Mountain Wildlife Area, comprising the Tucson Mountain District of SNP, Tucson Mountain Park, and the TMC, qualify as a Section 4(f) property in the category of a significant state recreation area and state wildlife refuge..." The Department also provided its position regarding Tucson Mountain Wildlife Area, Arlington Wildlife Area, and Powers Butte Wildlife Area.
	March 7, 2017	<ul style="list-style-type: none">Email and Meeting notes discussing the AGFD GIS Data provided for the Alternatives Selection Report and Tier 1 EIS.
	June 1 2017	<ul style="list-style-type: none">Avoid Vulture Mountain and Avra Valley areas because of high habitat quality and sensitive biological resources.Concern for habitat fragmentation and loss.Consider indirect impacts of I-11 proximity to natural resources.
	August 7, 2018	<ul style="list-style-type: none">Impacts to outdoor recreation user experience and revenue generation.Applicability of Section 4(f) to PLO 1015 lands and determining owner or official with jurisdiction.
	December 18, 2018	<ul style="list-style-type: none">The AGFD parcels that are adjacent to or near the PLO 1015 lands also are wildlife refuges and are in furtherance of the DOI/AGFD Cooperative Agreement from 1954, clause #7.



Table 4-9 Summary of Comments from Officials with Jurisdiction Over Section 4(f) Properties (Continued)

Agency/Entity	Comment Date (Context)	Summary of Comments Related to Section 4(f) Properties
Arizona State SHPO	April 27, 2016 (Pre-scoping)	<ul style="list-style-type: none">• SHPO suggested that at least 3 categories of sensitivity be considered.• 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.
	June 7, 2016	<ul style="list-style-type: none">• Preserve historic resources by using existing transportation infrastructure where possible.
	April 16, 2018	<ul style="list-style-type: none">• Concern over prehistoric and historic sites and districts being disrupted by the need to widen I-10 as well as the possible disturbance to unknown historical sites in unsurveyed areas (rural) where the alternatives could be placed.
	November 23, 2018	<ul style="list-style-type: none">• Concurrence with adverse impacts from the Orange Alternative historic and Section 4(f) properties in downtown Tucson.
	December 19, 2018	<ul style="list-style-type: none">• Concurrence with adverse impacts from the Orange Alternative to historic and Section 4(f) properties in downtown Tucson. Addressed corrections to November 23, 2018 concurrence to indicate the Barrio El Hoyo and Menlo Park Historic Districts would not be affected and revised the mapping of El Paso & Southwestern Railroad Historic District that would potentially be adversely affected, resulting in a Section 4(f) use.
County Agencies		
Maricopa County	April 6, 2016 (Pre-scoping)	<ul style="list-style-type: none">• Proposed Maricopa Association of Governments Hassayampa alignment effects on Vulture Mountains RMZ: existing and planned off-highway vehicle recreation area, campground, day use area, trail system, east/west recreation opportunities, access, wildlife connectivity.• Hassayampa River Preserve impacts to land, wildlife/wildlife connectivity, and noise (traffic).• County is looking at acquiring a piece of the Hassayampa River preserve as well.• Raptor nesting at Vulture Peak Area of Critical Environmental Concern (BLM).
	July 7, 2016	<ul style="list-style-type: none">• Concerns for probable conflicts with local traffic, recreation, and usage of areas in and around Vulture Mine Road.• Wildlife habitat and connectivity and neighborhood cohesion are areas of potential impacts.• Impacts to local FRSs and Dams need to be considered.• Possible impacts to the Loop 303 Outfall Drainage Channel which could negatively affect flooding retention and floodplains in the area.• Considerations should be made for air quality and the Maricopa Regional trail.
	May 16, 2017	<ul style="list-style-type: none">• Concerned about potential Impacts to the County's lands in the Vulture Mountains RMZ.



Table 4-9 Summary of Comments from Officials with Jurisdiction Over Section 4(f) Properties (Continued)

Agency/Entity	Comment Date (Context)	Summary of Comments Related to Section 4(f) Properties
Pinal County	May 31, 2017	<ul style="list-style-type: none"> Impacts to the following properties are of concern: Palo Verde Regional Park, Anza National Historic Trail Corridor, and several planned regional trail and open space corridors.
Municipal		
City of Tucson	August 19, 2016 (106 Consulting Party Acceptance)	<ul style="list-style-type: none"> Historic properties, including archaeological sites and Traditional Cultural Properties, are within the project Area of Potential Effects within the City of Tucson and City-owned lands outside the city limits.
Pima County	December 3, 2019	<ul style="list-style-type: none"> Section 4(f) evaluation and constructive use assessment of Tucson Mountain Park.

4.9 Summary of Findings

The Recommended Alternative would have a proposed net benefit to one Section 4(f) property (TMC). The Purple Alternative would have a proposed net benefit to one Section 4(f) property (TMC). The Green Alternative would have a proposed net benefit to the TMC and would a result in No Use or at most, a *de minimis* use to Robbins Butte Wildlife Area. There are seven Section 4(f) properties that fall within 120' of either side of I-10 in downtown Tucson. I-11 would expand the ROW 60 feet on either side, or 120 feet on one side or the other. Tunneling would not be prudent due to cost. Elevating could minimize harm, but noise and visual impacts would result in a use of the historic buildings and structures.

After careful consideration, FHWA and ADOT determined Orange Alternative impacts are unmitigable, whereas impacts under the Purple and Green Build Corridor Alternatives and Recommended Alternative could be mitigated. This Draft Tier 1 EIS identifies effective mitigation strategies to avoid, minimize, and mitigate these impacts.

4.10 Future Tier 2 Analysis

As set forth in 23 CFR 774.7(e)(1), FHWA has completed a Draft Preliminary Section 4(f) Evaluation in this Draft Tier 1 EIS, including avoidance alternatives, measures to minimize harm, and a least overall harm analysis. FHWA will complete a Final Section 4(f) Evaluation and Final Nationwide Programmatic Section 4(f) Evaluation (Net Benefit) during future Tier 2 analyses. At that time, FHWA will make final determinations of use, assess avoidance and least harm as warranted, and identify additional specific measures to minimize harm.



Errata to Appendix H, Stakeholder Input
Additional Attachments for Stakeholder Input



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PIMA COUNTY BOARD OF SUPERVISORS

TUCSON, ARIZONA

Reference # 5195

CHAIRMAN OF THE BOARD
COUNTY SUPERVISOR - DISTRICT 5

To Whom it May Concern:

The Pima County Board of Supervisors adopted Resolution No. 2007-343 on December 18, 2007, setting forth its opposition to construction of an interstate highway through "invaluable Sonoran Desert areas." That remains the official position of Pima County government.

At the time, the proposal under consideration was for an Interstate 10 Bypass Freeway, but it was along the same suggested routes as the currently proposed Interstate 11. A "favored" route then, as now, was through Avra Valley.

A freeway through the Avra Valley or other parts of the delicate Sonoran Desert is not compatible with the county's landmark Sonoran Desert Conservation Plan or with its Sustainability Plan to combat climate change in line with the 2015 Paris Agreement.

A freeway would destroy sensitive habitat for many of the 44 unique species of concern that the Conservation Plan protects. It would sever vital wildlife corridors between critical habitat areas of some of the larger species such as the Desert Bighorn.

The Sustainability Plan aims to steer the county government operations away from fossil fuel use and dependency, and a new freeway would promote increased fossil-fuel use, to the detriment of our air quality as well as to climate change.

A freeway through Avra Valley would impact severely and negatively such jewels and tourist areas as Tucson Mountain Park, Saguaro National Park, Ironwood National Monument, and the Arizona-Sonora Desert Museum. It would diminish vastly the quality of life of thousands of Avra Valley residents.

The cost of buying land for and building an entirely new freeway would be tremendous, when we do not have enough funds to maintain properly our existing roads and highways. It would cost much less to improve existing railroad corridors for cleaner passenger rail service and increased freight traffic.

An Interstate 11 would divert traffic away from existing businesses that depend on Interstate 10 and Interstate 19 traffic visibility for their survival.

A new freeway through any pristine Sonoran Desert area, and especially through Avra Valley, still is a very bad idea and the Pima County Board of Supervisors remains officially opposed to it.

Sincerely,

A large black rectangular redaction box covering the signature of the Chairman of the Board.

Pima County Board of Supervisors

A large black rectangular redaction box covering the signature of the District Three Supervisor.

District Three Supervisor
Pima County Board of Supervisors



[REDACTED]
Governor

[REDACTED]
Commissioner

Arizona State Land Department

Reference # 2400

June 1, 2017

[REDACTED] ADOT I-11 EIS Project Manager
Multimodal Planning Division
[REDACTED]

Thank you for the opportunity to review and provide comments on the proposed I-11 Corridor Alternatives as presented during the May 3 I-11 Tier 1 EIS Online Agency Meeting. The Arizona State Land Department ("ASLD" or the "Department") recognizes the importance of the I-11 Tier 1 EIS, and views the ultimate development of this multi-modal transportation corridor as a significant opportunity to generate economic development for the Trust beneficiaries. The Department understands that the GIS shapefiles delineating potential alternatives are not currently available for review, but will be provided during the upcoming EIS Analysis, when the range of reasonable alternatives will be formally evaluated. Please provide the GIS shapefiles to the Department at your earliest convenience. We look forward to the opportunity to conduct a detailed analysis of the potential route segments at that time, and provide feedback regarding ASLD's preferences.

Should you have any questions, please do not hesitate to contact me at [REDACTED]

Sincerely,

[REDACTED]
[REDACTED]
Project Manager, Planning & Engineering

[REDACTED]
Phoenix, AZ [REDACTED]
July 12, 2017

Reference # 5240

Interstate I-11 Tier 1 EIS Study Team
c/o ADOT Communications
[REDACTED]

Dear Study Team:

RE: Favorite Birding Sites and Hot Spots Threatened by
Proposed I-11 Routes.

I am writing on behalf of Maricopa Audubon Society (MAS) to state our concerns with some proposed I-11 routes through Maricopa County. The new freeway will cost birds and other wildlife habitat with any route chosen. However, some portions of the proposed routes pose extra threats, perhaps ruining areas which attract uncommon, if not endangered, species in Arizona and which have been long enjoyed by birders. I hope that by writing you and alerting ADOT to MAS' concerns that we can cooperate to improve the I-11 route and to avoid needless damage to important bird habitat.

Maricopa Audubon Society works to preserve Arizona's environment, particularly native biota, and shares the ADOT's goal of maintaining healthy ecosystems. Maricopa Audubon members enjoy hiking and wildlife study as primary forms of recreation.

Field trips arranged for our 1200 members and guests regularly visit a site near the Salome Highway and Baseline Road to see three species of thrashers. Proposed Route R would cover that area, ruining it for the thrashers and their admirers. I used to travel past that location regularly on other business, and I realized from seeing the cars parked nearby that birders and desert hikers not affiliated with MAS visit it often as well.

Proposed Route N threatens habitat containing Yellow-billed Cuckoos and Yuma Ridgeway's Rails. This habitat is unique in Maricopa

County. While we recognize that every route requires the loss of some wildlife habitat, these two examples suggest that ADOT needs to consider threats to bird habitat more carefully. We hope that MAS can assist in this process.

I understand that the time for public comment on the proposed I-11 routes ended in June, and I regret that MAS did not respond more quickly. A public meeting in Phoenix would have allowed us to react sooner but none was scheduled.

MAS believes ADOT's EIS process would benefit from considering the input MAS and other bird conservation organizations can provide. I would be happy to arrange a meeting at which the various Maricopa County I-11 routes, and the threats they create to birds and bird habitat could be discussed. I believe the final EIS would benefit from our input. I can be reached at [REDACTED] or at my cellphone [REDACTED].

Thanks for the work you are doing on this project. Maricopa Audubon Society hopes to work with the Study Team to contribute to its final success.

Sincerely,

[REDACTED]

Chair of the Conservation Committee
Maricopa Audubon Society



Alternative Interstate 11 Corridor From Wickenburg to Mexico Border



Prepared by:



June 2016

Updated: December 2017



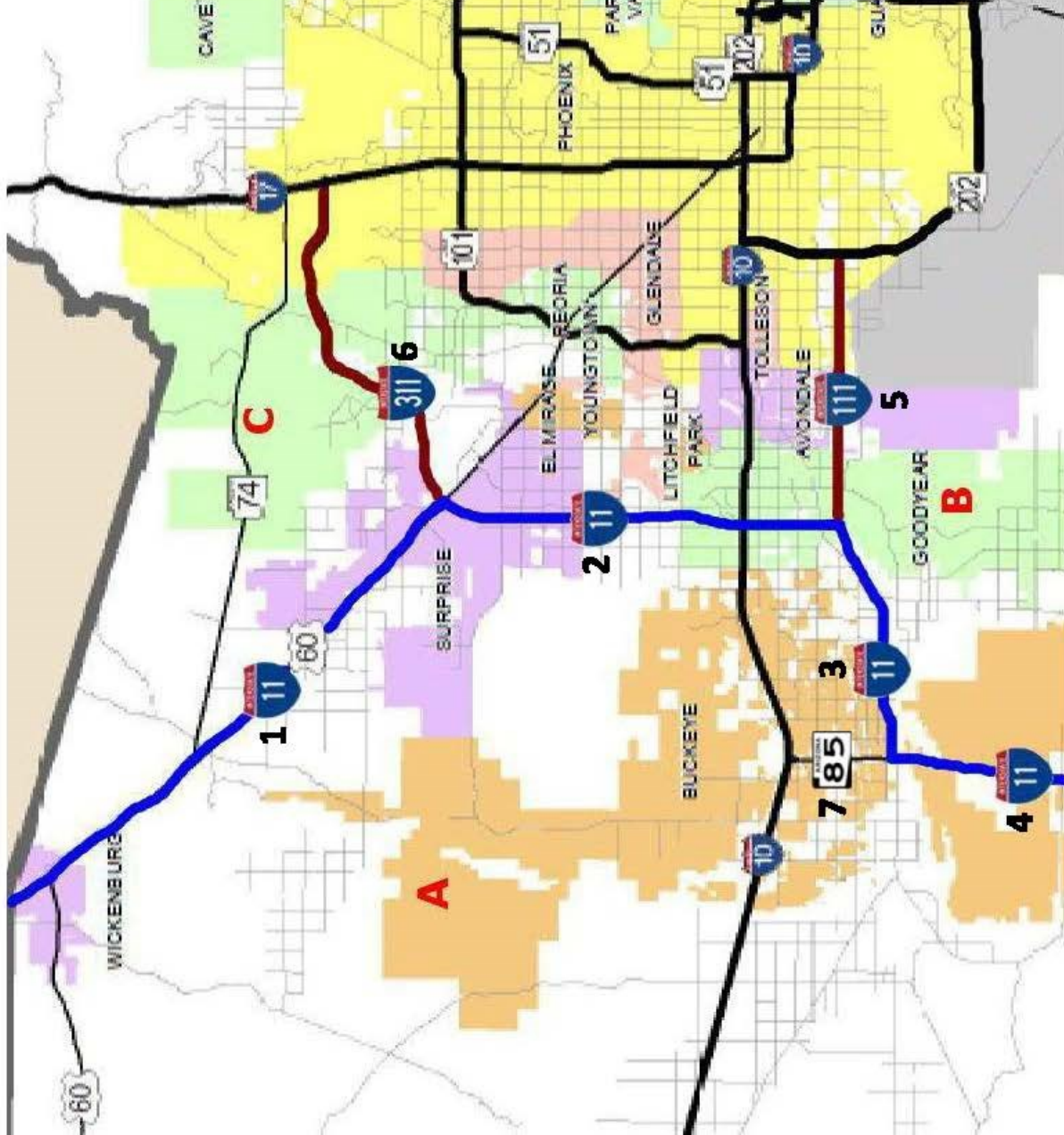
Reference # 3670





Summary / Overview of Proposed I-11 Corridor

- I-11 still replaces the existing US 93 corridor but a new corridor south of Wickenburg is proposed.
- I-11 corridor uses existing highway contours with no urban sprawl and no new desert destruction.
- I-11 provides quicker and safer travel to Lukeville border crossing and subsequently to Rocky Point.
- I-11 between I-10 and I-8 becomes a southern bypass around Phoenix for I-10 through traffic.
- I-11 is an alternate to I-19 for some truck traffic and reduces congestion from Nogales to Tucson.
- I-11 generates additional sales tax revenues from vacationers for state and local governments in AZ.



Phoenix West Valley I-11 Corridor (see map)

- 1) I-11 shares US 60 from Wickenburg to L303.
- 2) I-11 replaces Loop 303 from US 60 to SR 30.
- 3) I-11 replaces SR 30 from Loop 303 to SR 85.
- 4) I-11 replaces SR 85 from SR 30 to Gila Bend.
- 5) I-111 replaces SR 30 from Loop 303 to L202.
- 6) I-311 replaces Loop 303 from US 60 to I-17.
- 7) SR 85 freeway segment links I-10 and I-11.

- A) **DO NOT put I-11 west of White Tank Mtns.**
- B) **DO NOT extend Loop 303 south of SR 30.**
- C) **DO NOT convert SR 74 into a freeway.**

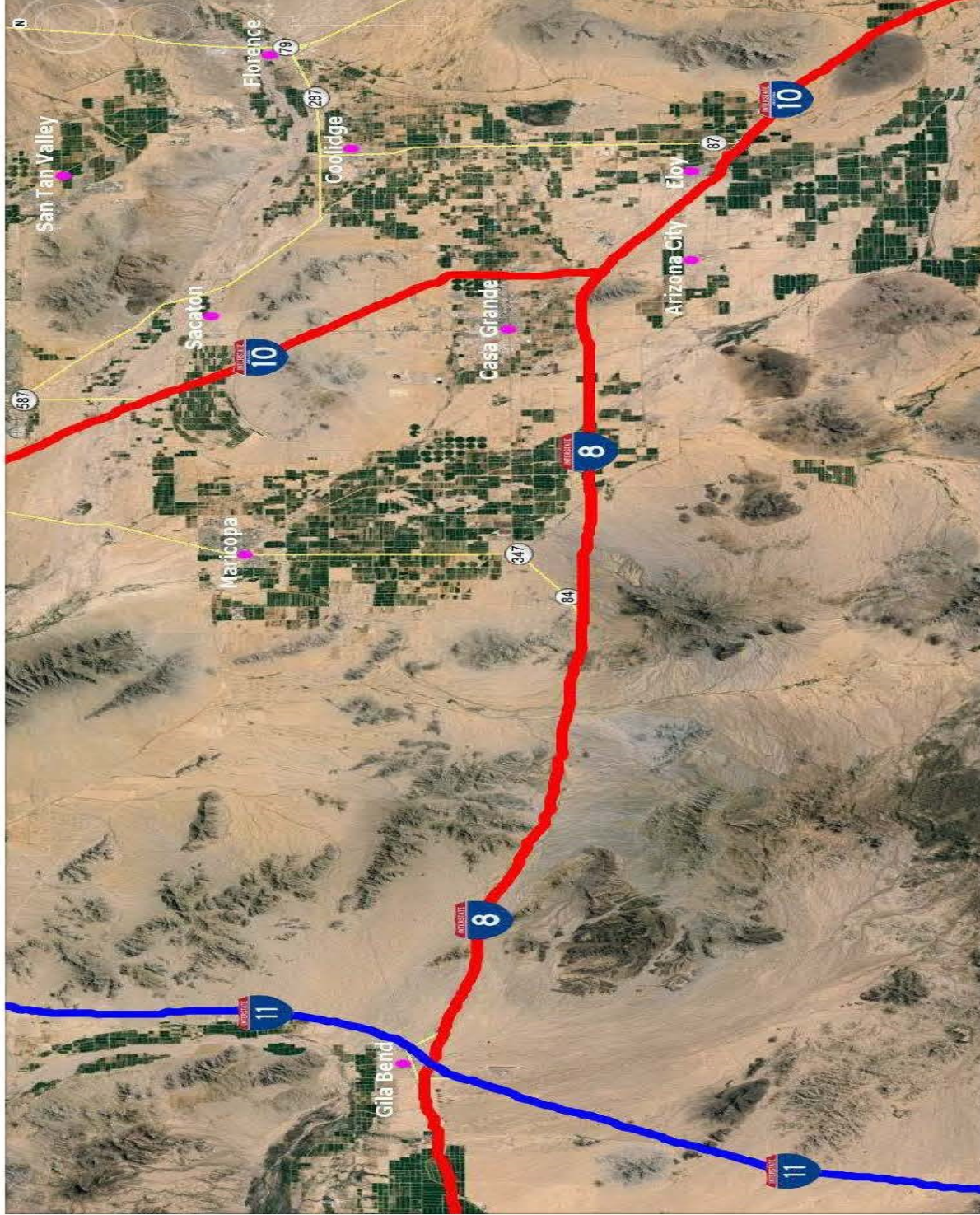
The above reallocations plus the transportation sales tax results in Maricopa County paying for the I-11 freeway from Wickenburg to Gila Bend.

This new I-11 corridor provides better utilization of sparsely populated freeways while saving the environment from construction of new corridors.

West Valley cities embrace the I-11 brand as its regional identity and for the auxiliary freeways.

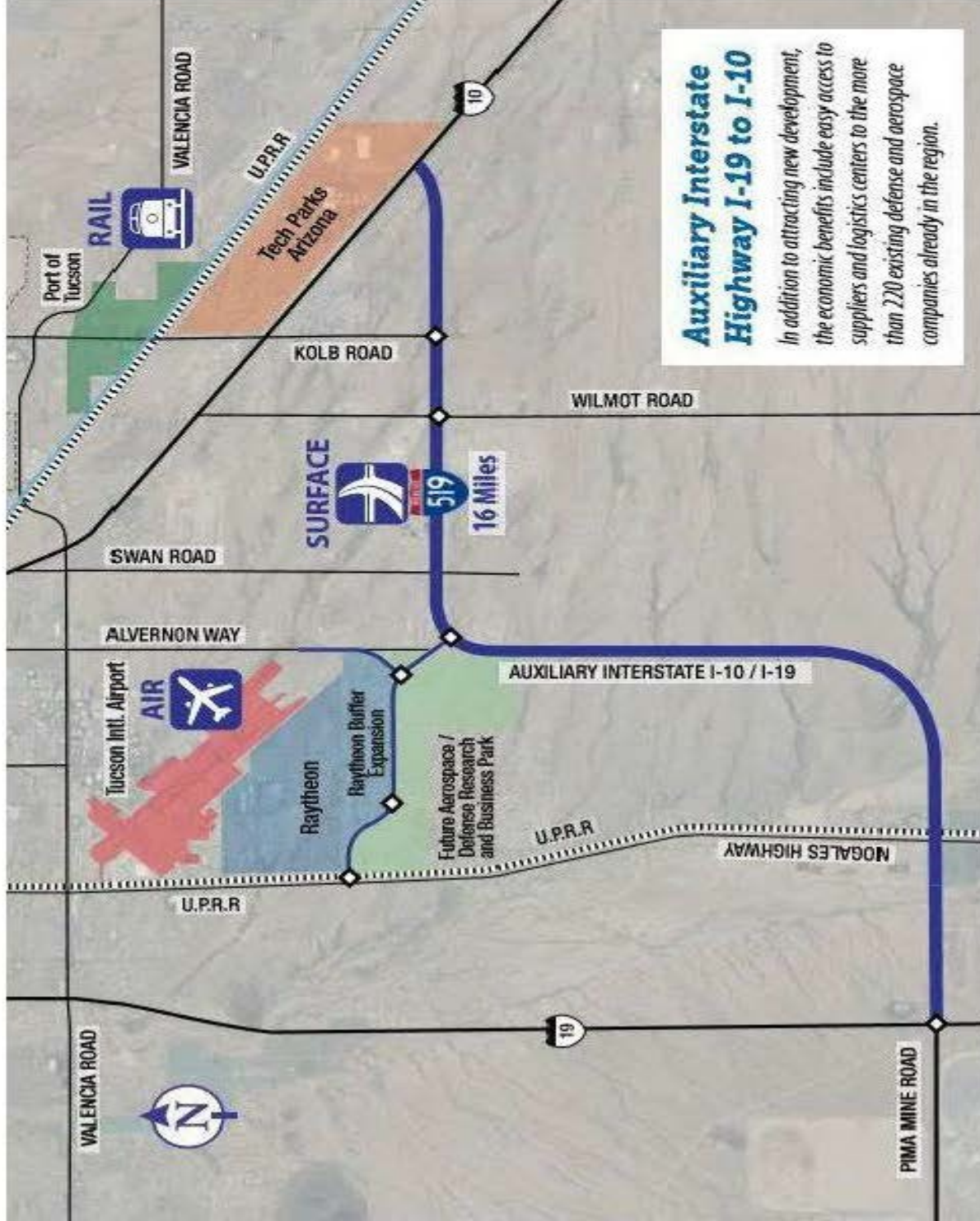
Central Arizona I-11 Corridor

- **I-11 replaces SR 85 and connects directly with I-8 near Gila Bend.**
- **Gila Bend serves as a gateway between I-11 and Pinal County with I-8 being the main linkage.**
- **I-10 west traffic to Los Angeles and Las Vegas can take I-8 and I-11 to bypass the Phoenix area.**
- **I-11 is an alternative to I-19 for travel between Hermosillo and Phoenix, Las Vegas, Los Angeles.**
- **I-11 does not enter Pinal County but a new North-South freeway is still planned for Pinal County.**



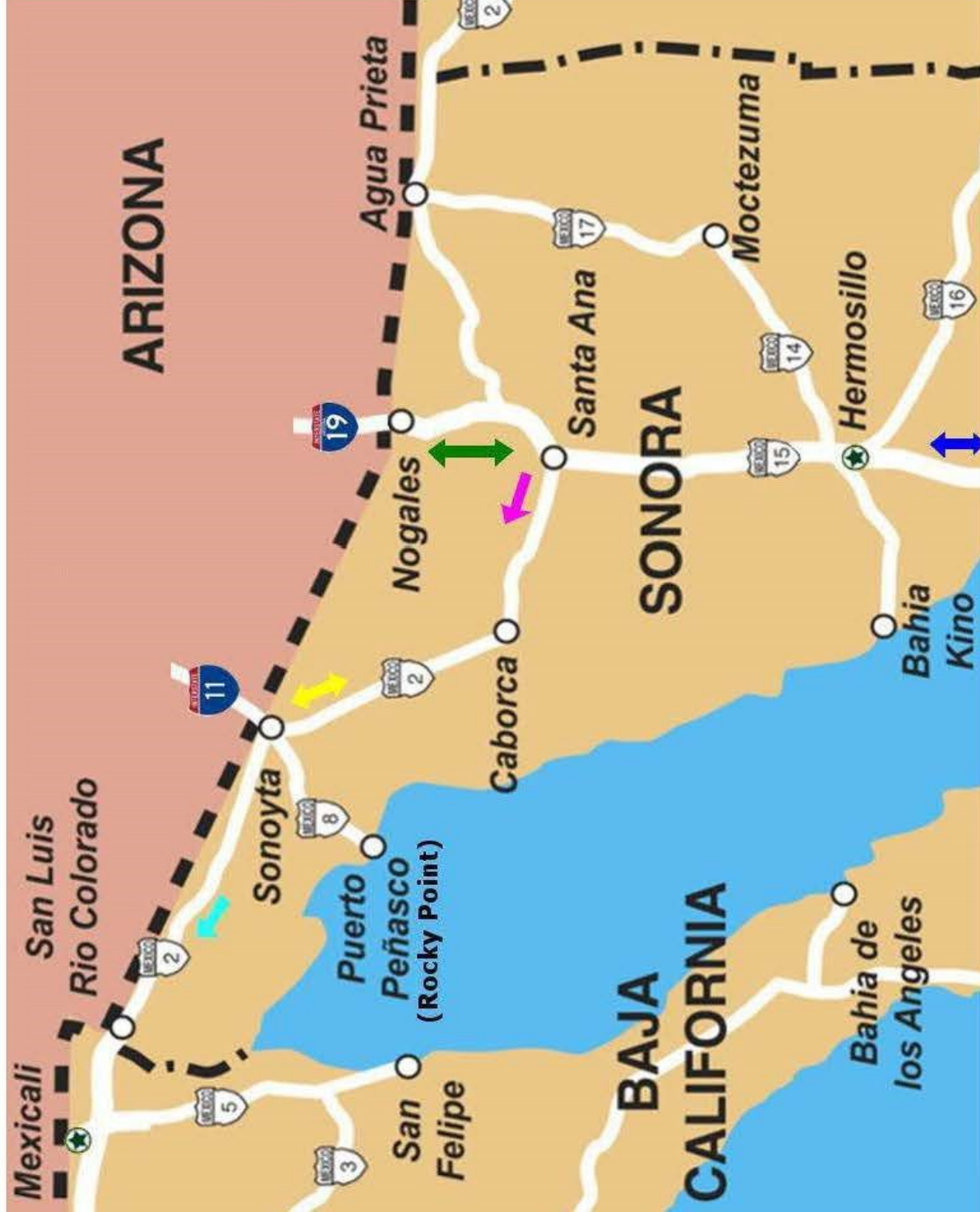
Tucson Metropolitan Region

- **No** western bypass between I-19 and I-10 through the Avra Valley.
- I-10 is widened in Tucson west of I-19 to contain extra truck traffic.
- I-10 double stacking could carry express trucks and buses with a potential bus-only transit ramp connecting Downtown Tucson.
- An auxiliary freeway connecting I-19 to I-10 provides faster travel between Nogales & New Mexico. (See map on the left for details).
- Tucson embraces the I-19 brand for its auxiliary Interstate label.



South of the Border Connectivity
(Refer to map for colored arrows)

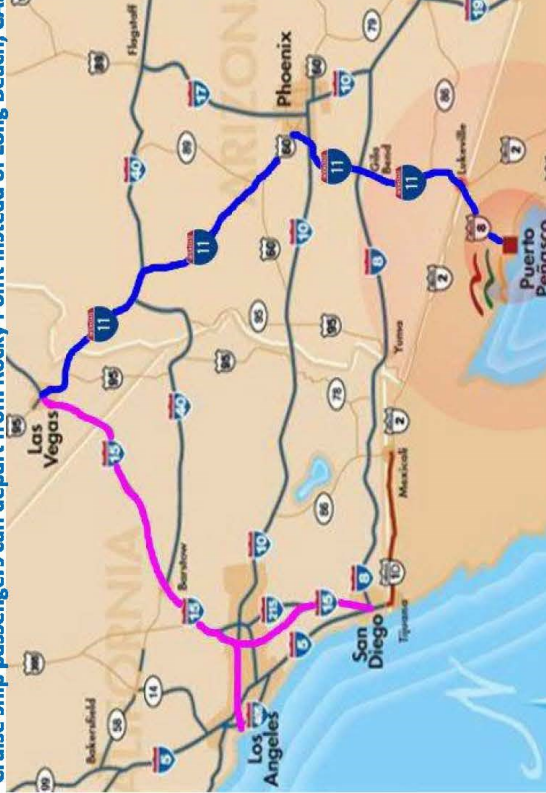
- **Arrow:** Common travel corridor from Guaymas and Mexico City.
- **Arrow:** Nogales is the dominant border crossing and offers direct access to Tucson & Pinal County.
- **Arrow:** A path to western border crossings for access to Gila Bend, Yuma, and Southern California.
- **Arrow:** Sonoyta is a secondary crossing from Hermosillo to reach Phoenix and Las Vegas. It also is a suitable alternative to Mexicali to reach Los Angeles. Sonoyta is the gateway from AZ to Rocky Point.
- **Arrow:** Yuma traffic crosses at San Luis; San Diego traffic may otherwise enter Baja California.



Las Vegas Tourists

- Visitors from around the world travel to Las Vegas as a vacation and entertainment destination. However, Las Vegas is missing an ocean and a beach; there is no substitute for an oceanic beach.
- Many Vegas tourists take day trips to the Grand Canyon; another day trip can occur to the beach. Rocky Point, informally known as *Arizona's Beach* can be shared with Vegas as *Las Vegas' Beach*.
- Rocky Point is further away but it has less congestion, cheaper prices, and warmer waters versus Southern CA and it bundles well within a Vegas vacation; SoCal is viewed as a separate vacation.
- A caravan of rental cars, chartered buses, and personal vehicles traveling between Las Vegas and Rocky Point provides sales tax opportunities such as eating at a restaurant or shopping at a mall.
- The accumulation of sales tax revenue can be significant for local, county, and state governments. Adding a side trip to nearby AZ locations within a Rocky Point day trip provides multiplier effects.

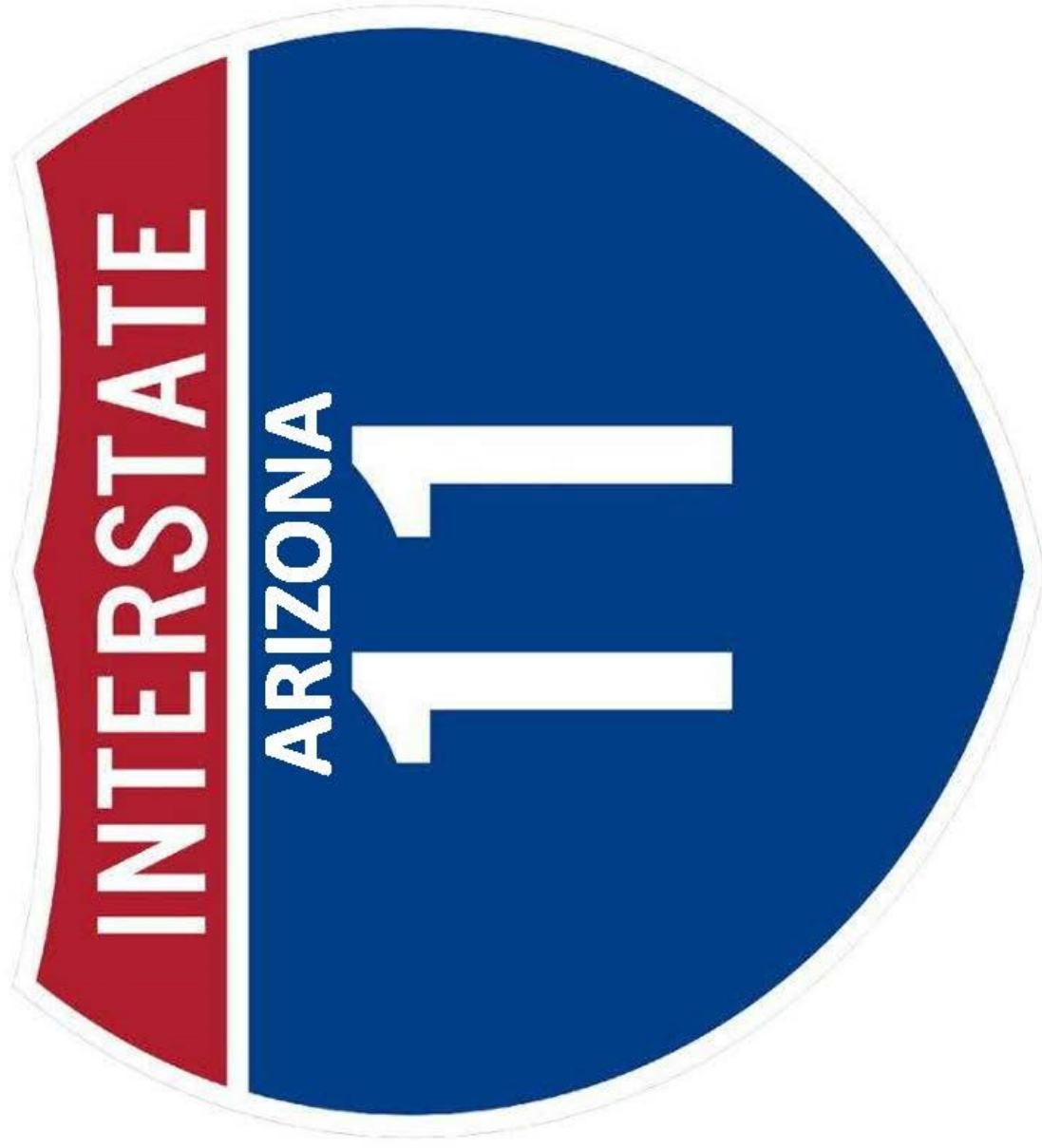
Las Vegas beach goers can travel to Rocky Point instead of Southern California.
Cruise ship passengers can depart from Rocky Point instead of Long Beach, CA.



It's raining dollars in the Arizona Desert from out-of-state visitors and tourists.

Arizona Tourism

- Arizona has many natural wonders, including Sedona and the Grand Canyon that tourists visit in a day trip. Likewise, these tourists can make another day trip to visit Rocky Point.
- An extra vacation day (or a repeat vacation) to Rocky Point creates multiplier effects to the AZ economy resulting in longer hotel stays and greater spending at stores, restaurants, etc.
- However, these economic benefits are not fully realized unless roadway improvements are made. Interstate 11 reduces travel time, increases safety, and serves as a direct connector.
- Increasing tourism to Sonora (including Rocky Point) strengthens the symbiotic relationship between Arizona and Sonora and through reciprocity, Sonora increases its trade to Arizona.
- I-11 between Mexico and Gila Bend carries some freight traffic and offers congestion relief from I-19 & I-10 while I-11 in the West Valley has access to manufacturing and distribution.



Pinal County I-11 Coalition

City of Casa Grande • City of Eloy • City of Maricopa • Pinal County • Tohono O'odham Nation • Sun Corridor MPO

Reference # 2028

December 27, 2017

[REDACTED] Project Manager
Interstate 11 Tier 1 EIS Study Team
c/o: ADOT Communications
[REDACTED]

Phoenix, AZ [REDACTED]

Subject: Interstate 11 Tier 1 Environmental Impact Statement
Alternatives Selection Report

Dear Mr. [REDACTED]

On behalf of the Pinal County I-11 Coalition, I would like to express our continued support of the Interstate 11 (I-11) Tier 1 Environmental Impact Statement (EIS) study effort and provide you an update on the status of the Pinal Regional Transportation Plan (P RTP).

With the passage of Propositions 416 (P RTP) and 417 (Pinal Regional Transportation Excise Tax) on November 7, 2017, the Pinal Regional Transportation Authority (P RTA) has begun the administrative actions to coordinate the approved regional transportation plan with Pinal County's two metropolitan planning organizations. Right-of-way preservation for the West Pinal Freeway, the Pinal County I-11 Coalition's preferred alignment for the I-11, is programmed in Period 2 (Fiscal Year 2023-2027) of the 20-year P RTP and is identified as Corridor Options I2 and I1 in the Alternatives Selection Report dated December 2017. The Pinal County I-11 Coalition is pleased to see that these corridor options are recommended for advancement to the Tier 1 EIS.

The P RTA and the Pinal County I-11 Coalition are fully committed to right-of-way preservation for the West Pinal Freeway project as it promotes freight movement, links our communities, and enhances job growth within Pinal County.

Thank you for keeping us informed with the progress made on the I-11 Tier 1 EIS.

Sincerely,

[REDACTED]
Chairman
Pinal County I-11 Coalition

Pete Rios
Supervisor, District 1

Mike Goodman
Supervisor, District 2

Stephen Q. Miller
Supervisor, District 3

Anthony Smith
Supervisor, District 4

Todd House
Supervisor, District 5



PINAL COUNTY

WIDE OPEN OPPORTUNITY

January 10, 2018

Mr. Jay Van Echo, Project Manager
Interstate 11 Tier 1 EIS Study Team
c/o: ADOT Communications
1655 W. Jackson Street, Mail Drop 126F
Phoenix, AZ 85007

Subject: Interstate 11 Tier 1 Environmental Impact Statement
Alternatives Selection Report

Dear Mr. Van Echo:

On behalf of the Pinal County Board of Supervisors, I would like to express our continued support of the Interstate 11 (I-11) Tier 1 Environmental Impact Statement (EIS) study effort and provide you an update on the status of the Pinal Regional Transportation Plan (PRTP).

With the passage of Propositions 416 (PRTP) and 417 (Pinal Regional Transportation Excise Tax) on November 7, 2017, the Pinal Regional Transportation Authority (PRTA) has begun the administrative actions to coordinate the approved regional transportation plan with Pinal County's two metropolitan planning organizations. Right-of-way preservation for the West Pinal Freeway, the Pinal County Board of Supervisors' preferred alignment for the I-11, is programmed in Period 2 (Fiscal Year 2023-2027) of the 20-year PRTP and is identified as Corridor Options I2 and I1 in the Alternatives Selection Report dated December 2017. The Pinal County Board of Supervisors is pleased to see that these corridor options are recommended for advancement to the Tier 1 EIS.

The PRTA and the Pinal County Board of Supervisors are fully committed to right-of-way preservation for the West Pinal Freeway project as it promotes freight movement, links our communities, and enhances job growth within Pinal County.

Thank you for keeping us informed with the progress made on the I-11 Tier 1 EIS.

Sincerely,

Stephen Q. Miller
Chairman

BOARD OF SUPERVISORS

I-11 Joint Stakeholder Community Planning Group

Reference #998

I-11 Position Statement

At the invitation of the Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA), representatives of several stakeholder organizations recently participated in a process to explore two alternative routes for the proposed Interstate 11 through Pima County. The stakeholders were convened in two separate groups, corresponding to the two alternatives being considered: (1) a new bypass freeway through Avra Valley and (2) expanding I-19 / I-10 through the city center. We appreciated being offered the opportunity to explore these routes and discuss the impacts and opportunities associated with each. As part of the federal NEPA Scoping Process, the two groups met separately in March and April, for a total of 9 hours for each group. However, after the scoping meetings ended, members of both groups concluded that more meaningful input could be provided to the federal and state agencies if they continued to meet as a joint group to evaluate impacts and opportunities of both corridor alternatives. As such, members of these two stakeholder groups are now working together, and we have arrived at several important conclusions, which we highlight here.

The undersigned representatives of both groups of stakeholders agreed that of the two routes proposed for a future I-11 highway, the expansion and reconfiguration of the existing I-10 and I-19 corridor is the only acceptable route. A bypass through Avra Valley is not acceptable.

Any further consideration of the Avra Valley option must take into account not only the input from both stakeholder groups but also the concerns of the Tohono O'odham Nation, whose land it impacts.

There appear to be significant shortcomings associated with the federal review process that focuses on new highway construction. Nevertheless, we believe that there could be a significant opportunity to address some of the historic negative consequences that resulted from the construction of I-10, which physically divided our community and diminished the quality of life of our downtown and other neighborhoods along the highway.

Instead of simply adding new lanes to our existing highway, we should consider redesigning portions of it—either going underground or suspended—so that we can reconnect our city. Moreover, focusing on new highway construction overlooks other less costly options that would encourage the free flow of goods. These include:

- Changes to the management of the existing highway to reduce congestion, including pricing, scheduling, and other programs;
- Technologies that improve traffic flows;

- Enhancements to our rail system, including light rail and intermodal transportation;
- Other road improvements that will divert traffic from I-10.

Assessing the cumulative impacts of these options on congestion should be considered before contemplating either a bypass or an expanded I-10. In addition, the following studies must be completed, with the results communicated to community stakeholders and incorporated into the decision process early on.

- A complete inventory of known and potential historic and archaeological resources that could be directly or indirectly impacted by the project. This study should be reviewed and approved by the Tucson Historic Preservation Foundation, the Tucson-Pima County Historical Commission, the City of Tucson Historic Preservation Office, the Pima County Cultural Resources and Historic Preservation Division, and the Arizona State Historic Preservation Office.
- Environmental quality impacts: air quality, noise, light pollution, viewshed, wildlife, vegetation, watershed, and the health and biological integrity of the Santa Cruz River.
- Social and economic equity impacts.

When studies are completed, there needs to be a demonstrated respect for the natural, historic, and archaeological resources and avoidance of all these resources in any build alternative.

Furthermore, we strongly encourage ADOT and FHWA to refer to the I-11 Super Corridor study final document, which was submitted to ADOT in 2016, to draw inspiration on a comprehensive design. The Sustainable Cities Lab, hosted at the University of Arizona (UA) College of Architecture, Planning and Landscape Architecture, completed this transdisciplinary study on the I-11 corridor along with Arizona State University and University of Nevada, Las Vegas. UA's study area focused on opportunities from Marana to south of downtown Tucson. Their outcomes incorporate many of our outlined points, including the addition of light and heavy rail, walking, cycling, new technology for controlling traffic as well as incorporating alternative forms of energy production and transportation. Utilizing such studies and designs would help us reduce impacts in our downtown and surrounding areas.

We believe that our community stands to benefit economically from increased trade between the United States and Mexico, and our location means we have much to contribute to and benefit from a vibrant trade corridor. However, we must not let a failure of vision and a lack of attention to practical options limit how we respond to the potential economic opportunities associated with the Interstate 11 proposal(s).

We also believe that civic and business organizations, including the groups we represent, should take the initiative to further explore these and other options available

to us, including a congestion-relief study that would model realistic and less costly options to improve the flow of goods through town, a community design charette that illustrates how we might redesign I-10, and an economic benefits study focused on the facilitation of moving goods through the center of the city and the reconnection of downtown areas now divided by the existing freeway.

In the months to come, we will be reaching out to business and civic leaders to secure their involvement and support in these efforts. By working together, we can we make our community a better place to live, work, and trade.

We appreciate the opportunity to have participated in the ADOT/FHwA stakeholder process, in order to provide valued input into this transportation proposal.

Thank you.

[REDACTED]
Coalition for Sonoran Desert Protection

[REDACTED]
Erickson Terrascope

[REDACTED]
Avra Valley Coalition

[REDACTED]
Tucson Audubon Society

[REDACTED]
Tucson Historical Preservation Foundation

[REDACTED]
Friends of Ironwood Forest

[REDACTED]
Menlo Park Neighborhood Association

[REDACTED]
Drachman Institute

[REDACTED]
National Parks Conservation Association

[REDACTED]
Statistical Research

[REDACTED]
Friends of Saguaro National Park



January 31, 2018

Reference #453

Mr. Jay Van Echo, Project Manager
Interstate 11 Tier 1 EIS Study Team
c/o: ADOT Communications
1655 W. Jackson Street, Mail Drop 126F
Phoenix, AZ 85007

Subject: Interstate 11 Tier 1 Environmental Impact Statement
Alternatives Selection Report

Dear Mr. Van Echo:

On behalf of the Central Arizona Governments Regional Council, I would like to express our continued support of the Interstate (I-11) Tier 1 Environmental Impact Statement (EIS) study effort and provide you an update on the status of the Pinal Regional Transportation Plan (PRTP).

With the passage of Propositions 416 (PRTP) and 417 (Pinal Regional Transportation Excise Tax) on November 7, 2017, the Pinal Regional Transportation Authority (PRTA) has begun the administrative actions to coordinate the approved regional transportation plan with Pinal County's two metropolitan planning organizations. Right-of-way preservation for the West Pinal Freeway, CAG's preferred alignment for the I-11, is programmed in Period 2 (Fiscal Year 2023-2027) of the 20-year PRTP and is identified as Corridor Options I2 and I1 in the Alternatives Selection Report dated December 2017. CAG is pleased to see that these corridor options are recommended for advancement to the Tier 1 EIS.

CAG is fully committed to right-of-way preservation for the West Pinal Freeway project as it promotes freight movement, links our communities, and enhances job growth within Pinal County.

Thank you for keeping us informed with the progress made on the I-11 Tier 1 EIS.

Sincerely,

Robin Benning, Queen Creek Council Member
Chairman
CAG Regional Council

Central Arizona Governments
2540 West Apache Trail, Suite 108
Apache Junction, Arizona 85120
www.cagaz.org

Tel: 480-474-9300
Toll Free: 800-782-1445
TDD: 480-671-5252
Fax: 480-474-9306

Aug. 16, 2018

Reference #7548

Dear Sir

Please find my Az. Map. I'm sending it as input for the planed I-11.

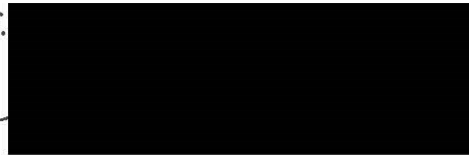
The pink form Nevada to an extended to blue I-19 North of Tucson (pink and blue) would facilitate the Northern growth of Tucson and help to relieve heavy traffic on I-10. I-11 could end at I-8 (Gila Bend) until I-19 is built at a later date.

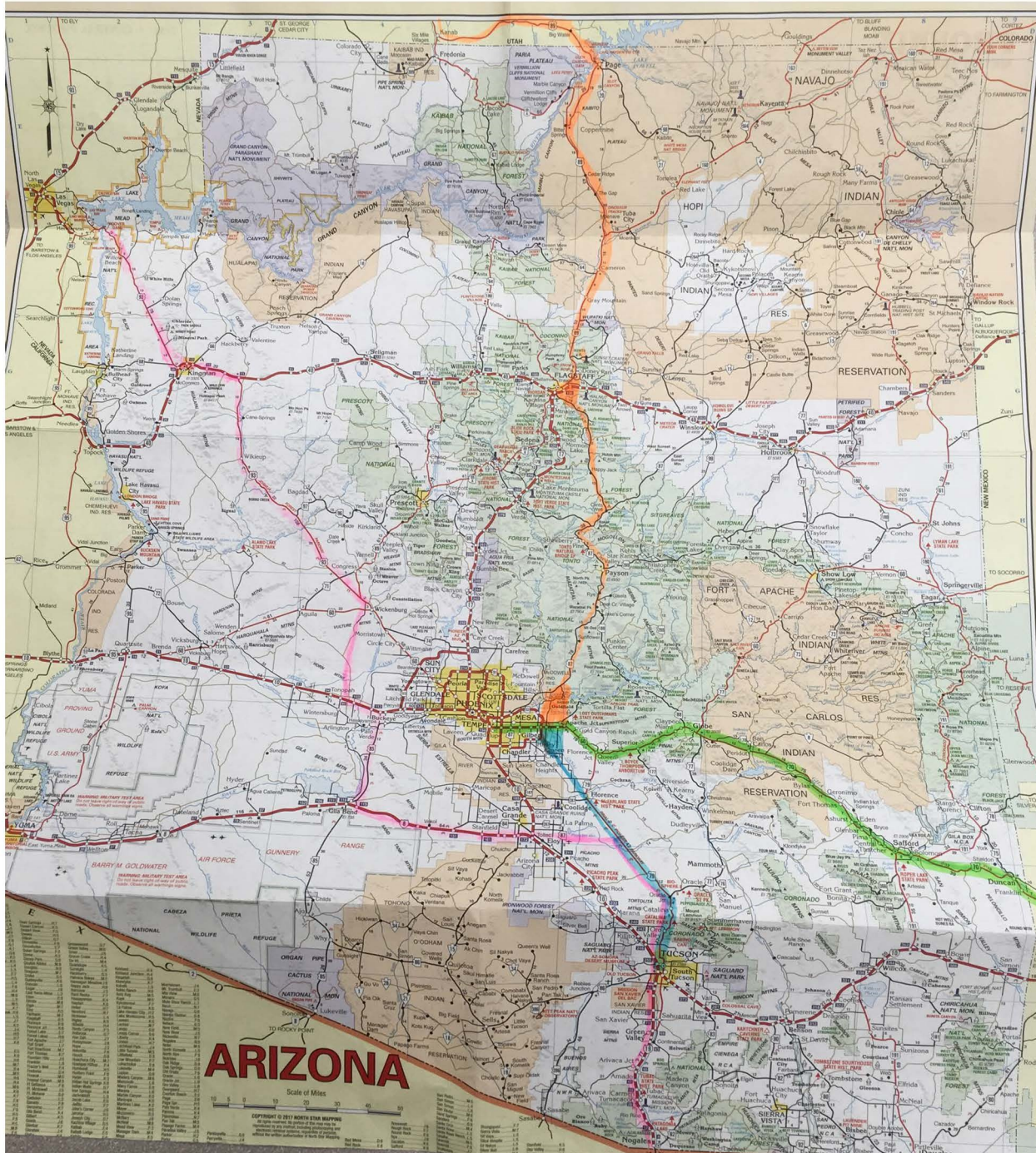
The blue I-19 to Mesa could be considered in the next twenty years.

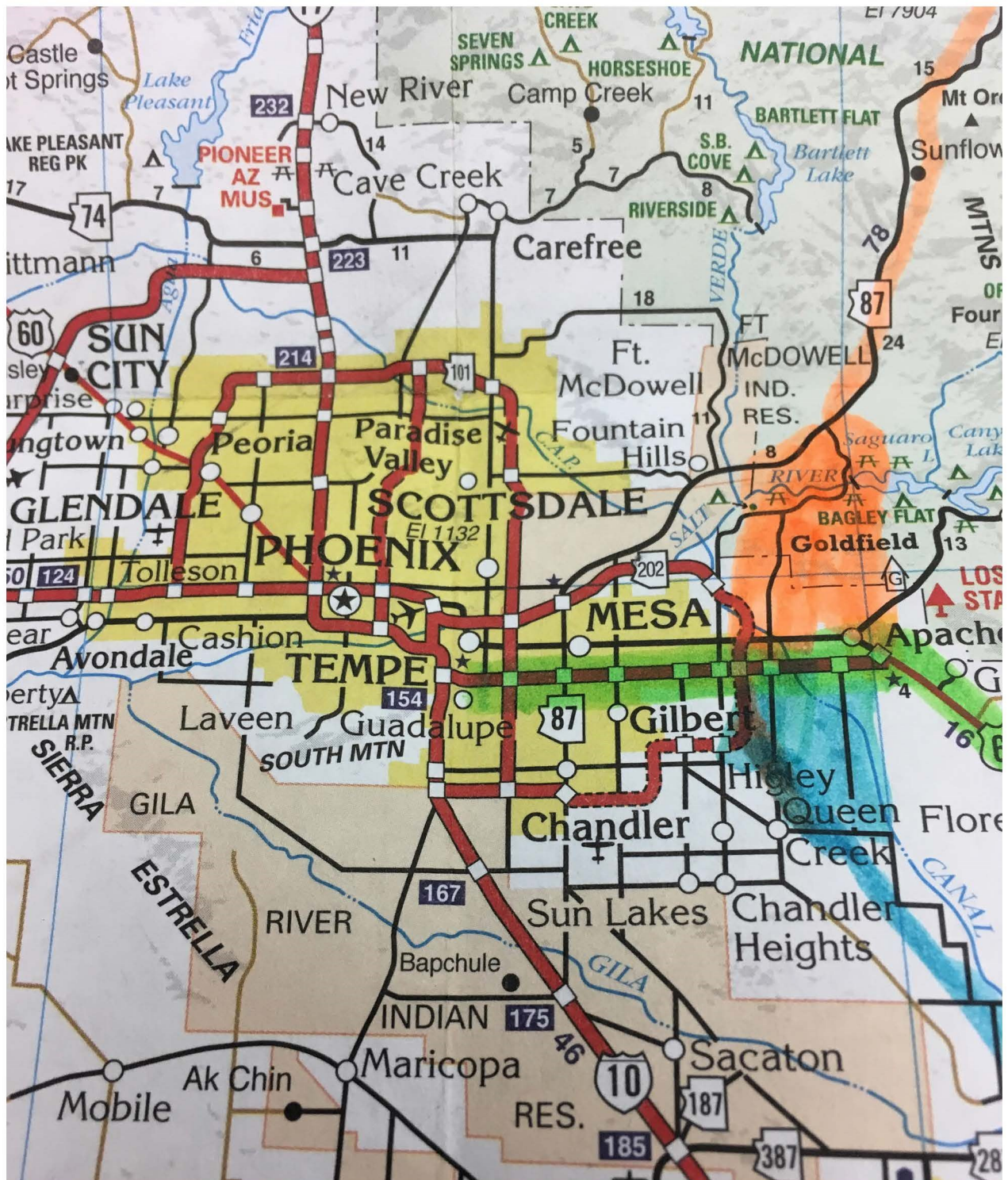
The green for I-12 would cut an hour to Lordsburg N.M., greatly reducing the carbon foot print. It would help in the development of Eastern Az. I see a need for it in the near future. See the Phoenix map.

The orange I-19 time line may be as many as fifty years in the future as an interstate to Salt Lake City. Extending I-17 is also a possible.

Thank you for your efforts on AZ. behalf.









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/

AUG 17 2018



Reference #7550

In Reply Refer To:
1610 (9200)

[REDACTED]
US Department of Transportation, Federal Highway Administration
[REDACTED]
Phoenix, AZ [REDACTED]

Dear [REDACTED]

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 Administrative Draft Environmental Impact Statement (ADEIS) for the Interstate 11 Corridor Project. The BLM has enjoyed an excellent cooperating agency relationship with both FHWA and ADOT throughout this process and commends both agencies on creating an inclusive process where cooperating agency issues and concerns have been identified and seriously considered in the development of the ADEIS.

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 relation to the Recommended Alternative identified in the ADEIS. As such, The BLM prefers the selection of the Orange Corridor Alternative presented in the ADEIS. This Orange Alternative generally avoids new impacts to BLM administered lands by consolidating new development within existing transportation corridors in the southern and central sections of the study area. New build portions of the Orange Alternative are primarily in the northern portion of project area (Segment S) and would avoid direct impacts to the Vulture Mine Recreation Management Zone (VMRMZ) as well as other BLM specially designated areas and sensitive resources.

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. These amendments would be considered as part of future project-specific Tier 2 NEPA analysis. The BLM has and will continue to work with FHWA and ADOT to identify these issues and minimize the need for future RMP amendments, through this Tier 1 process.

The three sections of the Study Corridor (North, Central, and South) identified in the ADEIS 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.

North Section- BLM Hassayampa Field Office

The BLM prefers the Orange Alternative in the Northern Section of the analysis area because it avoids the VMRMZ, an approximately 70,000 acre BLM-administered area. While the Recommended Alternative uses a BLM-identified multi-use corridor, it also bisects the VMRMZ and an identified racecourse for off-highway vehicles within it (the only OHV racecourse managed by the BLM Phoenix District). Maintaining access, and wildlife connectivity, to both sides of the VMRMZ would require significant mitigation, and therefore the BLM prefers altogether avoidance of the VMRMZ. The Orange Alternative, specifically Segment S, provides similar utility as the Recommended Alternative while avoiding these impacts to recreation.

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

The BLM prefers the Orange Alternative throughout the Central Section of the analysis area because it utilizes existing transportation corridors, Interstate 10 and State Route 85. Consolidating development in this area is preferred even though the Orange Alternative does cross the Sonoran Desert National Monument. Development of the Recommended Alternative has the potential to adversely impact multiple wildlife corridors between the Monument and the Buckeye Hills and the Sierra Estrella Mountains, respectively, as well as the Lower Gila Terraces and Historic Trails Area of Critical Environmental Concern, the Juan Batista de Anza National Historic Trail, and known archaeological sites and cultural resources.

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

The BLM prefers selection of the Orange Alternative in the Tucson Field Office to avoid impacts to the Ironwood Forest National Monument. While the Recommended Alternative does not cross the IFNM, it comes as close as 400 feet from the IFNM boundary in multiple places. The proximity of the Recommended Alternative could lead to both direct and indirect impacts to the IFNM and the natural resources and uses it was identified to preserve. These include possible impacts to air quality and noise from increased traffic in the area that could negatively affect recreation and other uses of the Monument. The IFNM is a Special Recreation Management Area (SRMA) designated in the Resource Management Plan. The SRMA designation includes objectives to preserve its undeveloped character. If the Recommended Alternative is selected the character of this SRMA and the recreational experience of users could be negatively impacted.

Development of the Recommended Alternative could also impede wildlife movement through the multiple wildlife corridors linking the Monument and other protected areas (c.g., Saguaro National Park and Picacho Peak State Park/Picacho Mountains). Additionally, the Recommended Alternative would cross all the roads that access the Monument; access to the Monument would need to be maintained through overpasses or other crossing structures.

Questions regarding these comments can be directed to [REDACTED]
[REDACTED]

Sincerely,

[REDACTED]
[REDACTED]
Deputy State Director
Lands, Minerals and Energy

cc: [REDACTED]

Interstate 11 Tier 1 EIS Study Team
c/o ADOT Communications
[REDACTED]

Phoenix, AZ [REDACTED]



Interstate 11 Corridor Tier 1 Environmental Impact Statement Nogales to Wickenburg

YOUR INPUT IS IMPORTANT • SU OPINIÓN ES IMPORTANTE

Please Print • Por favor, imprimir

Reference #1108

General Comments • Comentarios Generales

What difference will our opinion make? I have
voiced my thoughts before.

Use I-10, it's less expensive with less environmental impact

You are ~~only~~ holding public forums because it is
mandatory. No one listens to us.

It appears that the decision has been made

You have no consideration of environment, habitat or
the people this will affect.

Use I-10. It can be accomplished. It would be
cheaper and would not impact as much.

There are endangered wildlife in this area & would
destroy their habitat. Use Alt B & G

The only people that want I-11 out here are ones who
have monetary gain if it goes through

Name • Nombre

Email •

Address • Domicilio

City • Ciudad

Tucson AZ

State • Estado

AZ

Zip • Código Postal:

Contact • Contacte

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

EMAIL: i-11ADOTStudy@hdrinc.com | PHONE: 1-844-544-8049 (Toll-free/bilingual) | PROJECT WEBSITE: i11study.com/Arizona





Reference #1833

CITY OF ELOY

ARIZONA

January 22, 2018

[REDACTED] Project Manager
Interstate 11 Tier 1 EIS Study Team
c/o: ADOT Communications

[REDACTED]
Phoenix, AZ [REDACTED]

Subject: Interstate 11 Tier 1 Environmental Impact Statement
Alternatives Selection Report

Dear [REDACTED]

On behalf of the City of Eloy, I would like to express our continued support of the Interstate 11 (I-11) Tier 1 Environmental Impact Statement (EIS) study effort and provide you an update on the status of the Pinal Regional Transportation Plan (P RTP).

With the passage of Propositions 416 (P RTP) and 417 (Pinal Regional Transportation Excise Tax) on November 7, 2017, the Pinal Regional Transportation Authority (P RTA) has begun the administrative actions to coordinate the approved regional transportation plan with Pinal County's two metropolitan planning organizations. Right-of-way preservation for the West Pinal Freeway, the Pinal County I-11 Coalition's preferred alignment for the I-11, is programmed in Period 2 (Fiscal Year 2023-2027) of the 20-year P RTP and is identified as Corridor Options I2 and I1 in the Alternatives Selection Report dated December 2017. The City of Eloy is pleased to see that these corridor options are recommended for advancement to the Tier 1 EIS.

Eloy is fully committed to right-of-way preservation for the West Pinal Freeway project as it promotes freight movement, links our communities, and enhances job growth within Pinal County.

Thank you for keeping us informed with the progress made on the I-11 Tier EIS.

Sincerely,

[REDACTED]

[REDACTED]
City of Eloy



Interstate 11 Corridor Tier 1 Environmental Impact Statement Nogales to Wickenburg

YOUR INPUT IS IMPORTANT • SU OPINIÓN ES IMPORTANTE

Please Print • Por favor, imprimir

Reference #1728

General Comments • Comentarios Generales

I am opposed to the route through the Aura Valley but support building additional traffic lanes on the existing I-10 route. This could be done by widening I-10 or building a second layer in the central Tucson route.

A route through Aura Valley would promote urban sprawl. It would also negatively affect the Saguaro National Park and Desert Museum, two of our biggest tourist attractions. Tourism is a major industry here - we should not jeopardize it when there is a reasonable alternative.

Name • Nombre

Email • Correo Electrónico

Address • Domicilio

City • Ciudad

Tucson

State • Estado

AZ

Zip • Código Postal

Contact • Contacte

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

EMAIL: i-11ADOTStudy@hdrinc.com | PHONE: 1-844-544-8049 (Toll-free/bilingual) | PROJECT WEBSITE: i11study.com/Arizona



From: [REDACTED]
To: [REDACTED]
Subject: FW: Request update on ADOT's Interstate 11 E.I.S. Study
Date: Friday, September 21, 2018 10:53:23 AM
Attachments: [image001.png](#)

Reference #2499

Please log as appropriate. Thanks,

[REDACTED]
M [REDACTED]
[REDACTED]

From: [REDACTED] [mailto:[REDACTED]]
Sent: Friday, September 21, 2018 10:51 AM
To: [REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
Cc: [REDACTED], [REDACTED]
<[REDACTED]> [REDACTED] <[REDACTED]> [REDACTED]
<[REDACTED]>
Subject: RE: Request update on ADOT's Interstate 11 E.I.S. Study

My friends [REDACTED]

Not much new to report, however, a face-to-face conversation and opportunity to discuss the issues is always welcomed. The short of it is that for the past year since the December 2017 publication of the I-11 Alternative Selection Report (ASR) and the identification of the reasonable range of alternatives, which we have met about with you and SXD-TON leadership, we have been developing our Draft Environmental Impact Statement (DEIS) and vetting the social, economic, technical, and environmental opportunities and constraints.

The DEIS will be published for review and Public Hearing comment in late 2018 or early 2019. The TON as a Participating Agency and Section 106 Consulting Party will be on-board and responsible for review and comment. This comment period will occur immediately after publishing the DEIS in the Federal Register in a Notice of Availability. Additionally, we will send a notice to the Nation's Point of Contacts. We will have at least a 45-day comment period for the TON (and all the Districts) and all other agency, tribal, and the public to comment on.

Please again let me know if you'd like to meet for an update, be it yourselves, your leadership, community, or combination thereof.

All the best, [REDACTED]

[REDACTED]
ADOT I-11 Study Manager

[REDACTED] office

[REDACTED] cell

From: [REDACTED] [mailto:[REDACTED]]
Sent: Monday, September 17, 2018 5:08 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Request update on ADOT's Interstate 11 E.I.S. Study

September 17, 2018

[REDACTED]

I hope you are doing well. It's been about 5 months since your last in-person update to us (April 17, 2018) regarding the ongoing **ADOT's Interstate 11 E.I.S. Study**. I wanted to find out if there have been any significant events, milestones, or updates over the last 5 months on the project to warrant another in-person meeting? If so we are open to dates & times. If not, a simple email update will work as well. As always, we greatly appreciate your assistance. Thank you.

Sincerely,

[REDACTED]
Principal Planner
San Xavier District

From: [REDACTED] [mailto:[REDACTED]]
Sent: Wednesday, May 09, 2018 1:29 PM
To: [REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
Cc: [REDACTED] ([REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
<[REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
<[REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
<[REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
<[REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
Subject: RE: Checking in on progress of new diagram of Sonoran Corridor Route(s) on the San Xavier District / Future Allottee Meetings in mid to late June?

[REDACTED]

Thanks for the post. Let me know when/if you and [REDACTED] and/or tribal leadership or the Community requires any I-11 updates. I am at your service.

[REDACTED]
ADOT I-11 Study Manager
[REDACTED]
[REDACTED] office

cell

From: [REDACTED] [mailto:[REDACTED]]
Sent: Monday, May 07, 2018 9:08 AM
To: [REDACTED]
Cc: [REDACTED] ([REDACTED]) [REDACTED]
Subject: Checking in on progress of new diagram of Sonoran Corridor Route(s) on the San Xavier District / Future Allottee Meetings in mid to late June?

May 7, 2018

[REDACTED]

Good morning. I hope you are doing well. Since it's been almost 3 weeks since we last communicated, and it's now May, I would thought I would check in with you to find out how the **new diagram** with the proposed Sonoran Corridor route(s) across the District, including a **potential new Sonoran Corridor route** which you mentioned could be as far as 2 miles north of Pima Mine Road is coming?

Also I wanted to confirm you received the **ADOT-Kimley Horne 2009 I-19 Pima Mine Road Traffic Interchange Alternative Study** information I emailed you, [REDACTED] back on April 18?

Just a reminder, per our phone call back on April 17, at some point a potential new route 2 miles north of Pima Mine Road will still need to also need to be past the **SXCA Farm** due to their proposed Farm Extension Project, **TON's Peter Steere** for Archeological sensitive areas, and of course the **Desert Diamond Casino**.

Also per our April 17 phone call, I recall you [REDACTED] saying that ADOT & FHA were looking at **mid to late June 2018** to hold the **2 Meetings** with the **San Xavier Allottees**, here at our San Xavier District Council chambers. I did update our SXD Chairman on this, and he was open to having the meetings here at our SXD Council Chambers, if the room is available. And as I stated, once ADOT & FHWA has committed to firm meeting dates with the Allottees, then our SXD Chairman may be open to another INTERNAL MEETING to be held prior with the various stakeholders [REDACTED]
[REDACTED]

Just an important reminder, I will be out of the office from **May 30 through June 10**, returning June 11.

Sincerely,

[REDACTED]
Principal Planner
San Xavier District

[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Wednesday, April 18, 2018 12:27 PM
To: [REDACTED] <[REDACTED]> [REDACTED] <[REDACTED]>
Cc: [REDACTED] ([REDACTED]) <[REDACTED]> [REDACTED]
<[REDACTED]>
Subject: ADOT-Kimley Horne 2009 I-19 Pima Mine Road Traffic Interchange Alternative Study

April 18, 2018

[REDACTED]

Thank you both very much for your communication with the San Xavier District yesterday. Thank you [REDACTED] for providing us an I-11 Update at yesterday's Meeting. And thank you [REDACTED] for your phone call on the Sonoran Corridor Project. As I mentioned to both of you, back in **2008 & 2009**, the San Xavier District lead an effort to re-examine the **I-19 / Pima Mine Road Intersection** for safety reasons, due to the existing 180 degree curved on and off ramps at this intersection which are not ideal.

During 2008 & 2009 there were numerous joint meetings attended by representatives from **ADOT, FHA, Pima County, PAG, Town of Sahuarita, Desert Diamond Casino, CAP, ASARCO, Bureau of Reclamation, Kimley-Horne, Union Pacific Railroad, San Xavier District, Tohono O'odham Nation, etc.** The final **attached** June 2009 Study by Kimley-Horne (funded by PAG & ADOT) came up with **six alternatives** to **re-design the I-19 / Pima Mine Road Traffic intersection**. I think your team might find some of this information helpful, and possibly a **potential ALTERNATIVE** for the **Sonoran Corridor**.

Also for documentation purposes, I also **attached** a set of **post meeting notes**, one **meeting Agenda**, and **two sign- in sheets**, to give you an better idea of what was discussed, and who specifically attended, since this was from 10 years ago. If you have any questions, let me know. Thanks.

Sincerely,

[REDACTED]
Principal Planner
San Xavier District
[REDACTED]
[REDACTED]

From: [REDACTED] [mailto:[REDACTED]]
Sent: Tuesday, April 17, 2018 2:07 PM
To: [REDACTED]
Cc: [REDACTED] ([REDACTED]) <[REDACTED]>
<[REDACTED]> [REDACTED] <[REDACTED]>
Subject: FW: 410-A(BFI) BIA letter scan

[REDACTED]

Thanks for your time during our call today. Here is the letter attached from FHWA to BIA requesting landowner information regarding the Sonoran Corridor study.

Let me know if you have any questions.

Thanks,

[REDACTED]

Project Manager

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



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October 22, 2018

Reference #7592

To whom it may concern,

I strenuously object to the construction of I-11 to the west of Saguaro National Park and I urge you to use the existing I-10 corridor instead. Many of the best hiking trails and nature preserves in Arizona are on the west side of Saguaro National Park near Sandario Rd, and building a highway there would completely ruin the serene beauty of the area. It would create 3 different forms of pollution: 1) noise pollution, ruining the aesthetic of the National Park, 2) light pollution, interfering with stargazing and amateur astronomy, and 3) air pollution from the car exhaust. It would also be an eyesore. No one wants to see a highway while hiking the famous Hugh Norris Trail. This highway would run far too close to the best parts of our treasured National Park and it would be an embarrassment for our state. As a proud resident and homeowner in Tucson, I think I speak for thousands of Tucsonan residents, hikers, bikers, and nature enthusiasts when I strongly encourage you to use the existing I-10 corridor instead.

Thank you for your time.

Sincerely,

[Redacted Signature]

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