



# **Correspondence Received on Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation**

November 2021



Federal Aid No. 999-M(161)S  
ADOT Project No. 999 SW 0 M5180 01P



This report contains correspondence received on the Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation.

### **Appendix A: Correspondence Received from Cooperating Agencies**

- Arizona Game and Fish Department (August 13, 2021)
- Bureau of Land Management (August 3, 2021)
- United States Department of the Interior (August 16, 2021) including the Bureau of Reclamation, the National Park Service, and the United States Fish and Wildlife Service
- United States Environmental Protection Agency (August 16, 2021)
- United States Forest Service (August 11, 2021)

No correspondence was received from the Federal Aviation Administration, the Federal Railroad Administration, or the United States Army Corps of Engineers.

### **Appendix B: Correspondence Received from Participating Agencies**

- Town of Wickenburg (August 2, 2021)
- City of Tucson (August 16, 2021)
- Town of Sahuarita (August 13, 2021)
- Pima County (August 16, 2021)
- San Carlos Irrigation and Drainage District (August 16, 2021)

### **Appendix C: Correspondence Received from Tribes**

- Pascua Yaqui Tribe (July 27, 2021 and August 16, 2021)
- Ak Chin Indian Community (August 19, 2021)
- Navajo Nation (August 24, 2021)
- Yavapai-Prescott Indian Tribe (August 13, 2021)
- Colorado River Indian Tribes (August 16, 2021)

### **Appendix D: Other Correspondence Received**

Appendix D.1 contains other correspondence received during the official review period, and Appendix D.2 contains other correspondence received after the end of the review period.



## **Appendix A**

### **Correspondence Received from Cooperating Agencies**

Appendix A: Correspondence Received from Cooperating Agencies

Last Name	First Name	Organization	Submission	Method	Attachment	Tracking ID
Crowder	Clay	AGFD	<p>Hi Aryan and Jay,</p> <p>I've attached the Department's comment letter for our review of the I-11 Final Tier 1 EIS.</p> <p>Don't hesitate to reach out if you have any questions.</p> <p>Thanks, and have a great weekend!</p> <p>CHERI BOUCHÉR   PROJECT EVALUATION PROGRAM SPECIALIST</p> <p>ARIZONA GAME AND FISH DEPARTMENT</p> <hr/> <p>RE: Interstate 11 Final Tier 1 Environmental Impact Statement (FEIS) and Preliminary Section 4(f) Evaluation (Federal Aid No. 999-M(161)S; ADOT Project No. 999 SW 0 M5180 01P) (July 16, 2021)</p> <p>Dear Ms. Petty:</p> <p>The Arizona Game and Fish Department (Department) has worked cooperatively with the Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) throughout the Tier 1 NEPA process for the Interstate 11 (I-11) corridor. The Department has a key role in the conservation of wildlife populations and the habitats upon which these species rely in trust for the use and enjoyment of Arizona's citizens. The coordination with FHWA and ADOT throughout this planning process has provided opportunities for FHWA and ADOT to further the project's Purpose and Need, while addressing the conservation of wildlife and habitat at a landscape level.</p> <p>Since the April 2019 public Draft Environmental Impact Statement (DEIS) was published, FHWA and ADOT have made significant changes to the project that address concerns brought forward by the Department, other Cooperating Agencies, as well as the public. These broad changes include 1) shifting to an alternative between Buckeye and Casa Grande that minimizes impacts to the Gila River corridor and its surrounding agricultural lands, 2) moving forward into the Tier 2 process with two alternatives between Marana to Sahuarita, allowing for a much more in-depth analysis and comparison of resources, and 3) adding more detail and clarity to the commitments that aim to avoid, minimize, and mitigate impacts to biological resources.</p> <p>The Department supports FHWA and ADOT's decision to shift the location of the corridor segment between Buckeye to Casa Grande, to co-locate a portion of the corridor along existing facilities, i.e. Interstate 10 (I-10) and State Route 85 (SR 85). This co-location results in a significant reduction of potential impacts to sensitive resources found along the Gila River corridor, minimized impacts to 4(f) resources found within the corridor, and provides an opportunity to improve roadway safety. While the SR 85 will require upgrades to achieve Interstate design standards, it presents an opportunity to improve wildlife movement structures and design along the route, decreasing wildlife-vehicle collisions and improving driver safety, while maintaining connectivity for habitat and wildlife populations.</p> <p>In previous coordination and comment opportunities, the Department expressed concern about the level of studies and data needed for an equitable 4(f) comparison between the Avra Valley and downtown Tucson alternatives. While downtown Tucson is host to a number of historic properties, the Avra Valley is host to mitigation, water recharge, and conservation lands, some of which have not been analyzed as 4(f) properties, and much of the land has not yet been surveyed for cultural resources. Given the complexity of evaluating and comparing these 4(f) resources, the decision to move both routes forward into the Tier 2 process provides the time for more thorough studies and analysis to be conducted, and the significance and character of resources along each route to be better understood. One issue that needs particular attention and resolution is the use of the Tucson Mitigation Corridor (TMC):</p> <ul style="list-style-type: none"><li>● According to information presented in the Final EIS and the Section 4(f) Evaluation, the Preferred Alternative West Option through the TMC would likely result in permanent adverse impacts to the primary function of the TMC. The Fish and Wildlife Coordination Act (FWCA) of 1958 (PL 85-624, 16 U.S.C. 661 et seq.) requires that "lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)]." The TMC was established under the authority of the FWCA "[t]o mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west." While the mitigation commitments identified in Table 7.1 lay the groundwork for minimizing impacts associated with the construction of an interstate highway, it remains unclear how the adverse impacts of I-11 through the TMC can be mitigated in a manner that avoids defeating the purpose for which the TMC was acquired.</li></ul> <p>The Department understands that the preparation of a NEPA document for a Tier 1 process, which provides landscape-level planning, can pose challenges when making mitigation commitments; specifically, without dedicated funding in place there are limitations on the scope and scale of commitments that can be included into the Tier 1 process. The Department appreciates the level of clarity and detail provided in the mitigation commitments for impacts to biological resources, including the commitment for pre-Tier 2 surveys, ongoing coordination throughout the Tier 2 effects analyses and design phases, and recognizing Arizona Game and Fish Commission Policy A1.9, and Department Policy I2.3, that seek compensation for actual or potential habitat losses resulting from land and water projects. The Department looks forward to seeing these commitments included in the Tier 1 Record of Decision (ROD) and implemented prior to Tier 2 analyses, during Tier 2 design and NEPA processes, during construction, and finally, during post-construction monitoring and fulfillment of habitat conservation commitments.</p> <p>The Department also noted ADOT/FHWA's commitment to evaluate impacts on outdoor recreation and the overall regional economy by using recent, relevant outdoor recreation data such as the Bureau of Economic Analysis's Outdoor Recreation Satellite Accounts. In addition to an examination of how the Tier 2 projects will affect recreation along the corridor, and the economic impacts of those effects, the need for continued or improved public access to recreation lands is also an important element to consider during siting and design of the facilities. The Department looks forward to coordinating regarding recreation access moving forward into the Tier 2 processes.</p> <p>The Department remains committed to working with ADOT and FHWA as the Segments of Independent Utility move forward into the pre-Tier 2 studies and the Tier 2 NEPA processes. If you have any questions or wish to further discuss our comments and concerns, please contact Cheri Bouchér at cboucher@azgfd.gov or 623-236-7615.</p> <p>Sincerely,</p> <p>Clay Crowder</p> <p>Assistant Director, Wildlife Management Division</p> <p>AGFD # M21-07160359</p>	email	Crowder_AZ GFD_1382	1382
Davis	Kurt	USFS Coronado National Forest	<p>August 11, 2021</p> <p>The Coronado National Forest (CNF) appreciates the opportunity to comment on the Final Tier 1 Environmental Impact Statement for the Interstate 11 Corridor between Nogales and Wickenburg, Arizona. The comments below comprise my response to your request for feedback on the Preferred Alternative and contents of the Final Tier 1 EIS. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA) (42 USC 4321, et seq) and were evaluated under the guidance of the 2018 Coronado National Forest Land and Resource Management Plan (Forest Plan) and with consideration of our partners.</p> <p>As stated during previous comment opportunities, the CNF does not support any proposed plan in which any portion of the proposed Interstate 11 corridor may cross National Forest System lands. According to the Preferred Alternative, Pima County will retain an east and west option. Given these options, the CNF supports the east option which is co-located with 1-10 and 1-19. While the east option will have adverse impacts, this option best</p>	mail	Davis_USFS_2591	2591



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			<p>supports our partners and better avoids significant adverse impacts to sensitive biological resources in the area, including vegetation and wildlife habitat, threatened and endangered species, and scenic resources than the west option.</p> <p>The concept of preserving open space is widely recognized as a primary tool for sustaining ecosystem components and processes across landscapes and is one of the driving issues of the Forest Plan. Therefore, we do not support the west option in Pima County as part of the Preferred Alternative. While the Final Tier 1 EIS states that both options are retained to make a more informed decision, we believe that the impacts of the west option do not warrant further examination or field studies due to the predicted significant negative impacts across all resource areas. We also recognize the impacts that our partners would suffer under the west option including the National Park Service, Bureau of Land Management, Bureau of Reclamation, and other state and county agencies. The CNF continues to support all options that will maximize co-location of existing roads and prioritize habitat connectivity, minimize the chances of genetic isolation of wildlife, and minimize impacts to wilderness character.</p> <p>While the CNF recognizes that the Forest Plan only applies to U.S. Forest Service National Forest System lands, the success of meeting the desired conditions extends beyond the forest boundaries. The CNF believes in the need to work in partnership with other entities to sustain the natural and social environments of our shared communities. All agencies and nongovernmental organizations that manage wildlife, fish, rare plants, and their habitats need to work together as complete partners, rather than relying on an individual group or agency to bear the burdens of management and conservation. The CNF continues to stand with our partners that are working towards a shared mission of the natural and social environments and supports the comments submitted by Saguaro National Park, Bureau of Land Management, and Bureau of Reclamation. This includes our continued stance that the assessment of constructive use in the 4(f) analysis for Saguaro National Park is flawed and does not capture the level of severe negative impacts that the Park would sustain if the west option were constructed.</p> <p>The CNF looks forward to future coordination with FHWA and ADOT, and we continue to support your efforts in developing this corridor.</p> <p>Kurt Davis Deputy Forest Supervisor</p>			
Favour	Nancy	BLM	<p>Hi Aryan,</p> <p>I apologize that BLM did not catch these conflicts earlier, but a manager with the Lower Sonoran Field Office took a close look using the shapefiles and identified two areas where the Preferred Corridor overlaps with proposed solar facilities. Please see the attached maps. Here is description:</p> <ol style="list-style-type: none"><li>Preferred Alternative segment M crosses through approved right-of-way for the Sonoran Solar project.</li><li>Preferred Alternative segment L crosses through in process right-of-way for the Pinyon Solar project.</li></ol> <p>Tucson Field Office confirmed that there are some linear ROWs for utilities within the Preferred Corridor, but no approved/proposed facilities. We're waiting for confirmation from the Realty Specialist for Hassayampa Field Office that there are no approved/in-progress ROW near the corridor. Lane Cowger previously commented on BLM's preferences for the Vulture Mountain RMZ. Since I will be on leave, Derek Eysenbach will let you know if we find any conflicts in Hassayampa Field Office.</p> <p>We have no other comments.</p> <p>Thank you,</p> <p>Nancy</p> <p>Nancy Favour, Planning and Environmental Specialist BLM Arizona State Office, Interior Region 8 nfavour@blm.gov (602) 417-9489 BLM NEPA Streamlining Resources; BLM AZ Planning &amp; NEPA Sharepoint If you want to be right, be pessimistic. If you want to do right, be optimistic. - MK Burns</p>	email	Favour_BLM_2590	2590
Prijatel	Jean	USEPA	<p>Karla and John-</p> <p>Attached please find EPA's comments on the Tier 1 Final Environmental Impact Statement for the Interstate 11 Corridor Project. We thank FHWA and ADOT for working so closely with our agency throughout the development of this Tier 1 EIS, and we look forward to continued coordination during Tier 2 studies as we strive to further avoid and minimize impacts to communities and environmental resources of concern.</p> <p>Best,</p> <p>Clifton</p> <p>-----</p> <p>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 9 75 Hawthorne Street San Francisco, CA 94105-3901 August 16, 2021 Karla S. Petty      John S. Halikowski Arizona Division Administrator      Director Federal Highway Administration      Arizona Department of Transportation 4000 North Central Avenue, Suite 1500      206 South 17th Avenue, MD 100A Phoenix, AZ 85012      Phoenix, AZ 85007 Subject:      Final Tier 1 Environmental Impact Statement for the Interstate 11 Corridor Project (EIS No. 20210096) Dear Division Administrator Petty and Director Halikowski: The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act. Throughout programmatic analysis for the I-11 Corridor Project, EPA has provided written and verbal feedback to the Federal Highway Administration and Arizona Department of Transportation during monthly Cooperating Agency meetings and at multiple coordination points, including comments provided on the project Purpose &amp; Need (December 28, 2016), Alternative Selection Report (November 3, 2017), Administrative Tier 1 DEIS (August 6, 2018), and Tier 1 DEIS (June 26, 2019). The extensive early coordination on the development of this Fina1 Tier 1 EIS has resulted in efficiencies in the environmental review process and the early identification and resolution of many concerns previously raised by the EPA.</p>	email	Prijatel_USEP A_2592	2638

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			<p>We are particularly encouraged that FHWA and ADOT have taken into consideration many of the comments provided by agencies and the public, and have identified a Preferred Alternative in this Final Tier 1 EIS that contains significant differences from the Recommended Alternative in the Draft Tier 1 EIS. Importantly, the Preferred Alternative greatly reduces potential impacts to Waters of the United States by avoiding a new crossing of the Santa Cruz River at Marana, and shifting the corridor away from a 12-mile stretch of braided channels and wetlands associated with the Santa Cruz River, Los Robles Wash, and Greene Canal. Further, the Preferred alternative shifts the corridor to co-locate with I- 10 and SR-85 in Buckeye, thus avoiding the need for new crossings of the Gila and Hassayampa Rivers. We commend FHWA and ADOT for considering the importance of these resources and making these corridor shifts.</p> <p>Recommendations for Future Project-level, Tier 2 NEPA Analyses</p> <p>We thank FHWA and ADOT for working so closely with our agency throughout the development of this Tier 1 EIS, and we look forward to continued coordination during Tier 2 studies as we strive to further avoid and minimize impacts to environmental resources of concern. In addition, we urge FHWA and ADOT to follow through with the many commitments made in the Tier 1 EIS. We encourage continued close coordination with regulatory agencies during the development of future environmental assessments and/or environmental impact statements to collaboratively identify specific project design commitments that, at the Tier 2 stage: 1) consider climate change impacts; 2) reduce impacts to environmental justice communities; and 3) minimize impacts to environmental resources to the greatest extent possible. EPA provides the following recommendations for future Tier 2 analyses:</p> <ul style="list-style-type: none"><li>Identify early in the Tier 2 analysis process the most current climate change impact assessment methodologies and potential effects for each project area/region. Integrate climate change considerations into the entirety of the Tier 2 analysis process for each project segment, including during establishment of project purpose and need and development of project alternatives.</li><li>Commit to a community engagement process that integrates accessibility and effective communication measures for meaningful involvement with all stakeholders, including tribal and indigenous peoples, and communities with environmental justice concerns. Include a robust environmental justice analysis that incorporates results into project design and decisionmaking. The EPA is available to assist with identifying tools and data sources for environmental justice analysis methodology when Tier 2 projects are initiated.</li><li>Ensure that Tier 2 projects are implementing the commitments discussed above to avoid a new crossing of the Santa Cruz River at Marana and to avoid the need for new crossings of the Gila and Hassayampa Rivers. Demonstrate that all potential impacts to waters of the United States have been avoided and minimized to the maximum extent practicable. If these resources cannot be avoided, the project-level analyses should clearly demonstrate how cost, logistical, or technological constraints preclude avoidance and minimization of impacts.</li><li>Identify all protected resources with special designations and all special aquatic sites and waters within state, local, and federal protected lands. Additional steps should be taken to avoid and minimize impacts to these areas.</li><li>Identify avoidance and minimization measures for each alternative analyzed, and quantify the specific resources avoided, for example, acres of habitat avoided, acres of waters of the United States avoided, number of stream crossings minimized, etc.</li><li>As committed to in the Tier 1 Final EIS, develop and fund wildlife movement and roadway mortality studies prior to Tier 2 analysis so that adequate data will be available to guide the development of appropriate mitigation measures, including appropriate siting and sizing of wildlife underpasses and overpasses along the future I-11 alignment. Disclose how the development of the I-11 corridor will affect wildlife movement and discuss how fencing for safety purposes will be integrated with proposed wildlife passages. Identify the connections that would likely remain after construction of the corridor and highlight these areas as "connectivity zones" for protection and preservation. Explore opportunities for preservation of these corridors through mitigation and cooperative agreements.</li></ul> <p>If you have questions regarding our comments, please contact Clifton Meek, the lead reviewer for this project, at 415-972-3370 or meek.clifton@epa.gov.</p> <p>Sincerely, Digitally signed by CONNELL DUNNING Date: 2021.08.16 15:08:00 -07'00' for Jean Prijatel Manager, Environmental Review Branch Cc via email: Aryan Lirange, Federal Highway Administration Alan Hansen, Federal Highway Administration Rebecca Yedlin, Federal Highway Administration Jay van Echo, Arizona Department of Transportation Jesse Rice, U.S. Army Corps of Engineers Cheri Boucher, Arizona Game and Fish Department</p>			
Tryon	Stephen	DOI	<p>Mr. Aryan Lirange, Attached is a pdf copy of the Department of the Interior comment letter for the subject project for your consideration. If you need a hard copy of this letter, please let me or Janet Whitlock know. Thank you, Shawn Alam</p> <p>Dear Ms. Petty: The Department of the Interior (Department) has reviewed the Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) Interstate 11 (I-11) Corridor Tier 1 Final Environmental Impact Statement (FEIS), dated July 2021, and provides these comments under environmental authorities, including the National Environmental Policy Act (NEPA), the Fish and Wildlife Coordination Act (FWCA), and Section 4(f) of the U.S. Department of Transportation Act on behalf of its bureaus: the Bureau of Reclamation (BOR), the National Park Service (NPS), and the U.S. Fish and Wildlife Service (FWS). The Department provided comments during review of the Administrative Draft Environmental Impact Statement (DEIS) in 2018, DEIS dated March 2019, and Administrative FEIS January 2021. In the FEIS, FHWA/ADOT's preferred alternative includes both an East Option and West Option. The Department appreciates ADOT/FHWA's proposal to carry the Preferred Alternative – East Option forward for further analysis in Tier 2. The Department's bureaus continue to review relevant project materials as cooperating agencies under NEPA and provide the following outstanding concerns previously identified through review of the study which are not sufficiently resolved in the FEIS. Bureau of Reclamation Comments Based on the FEIS and the Section 4(f) Evaluation, the Preferred Alternative – West Option (the former Recommended Alternative) through the Tucson Mitigation Corridor (TMC) would result in permanent adverse impacts to the primary function of the TMC. The FWCA of 1958 (PL 85-624, 16 U.S.C. 661 et seq.) requires that "lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)]." As identified in past correspondence, the TMC was established under the authority of the FWCA "[t]o mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west." The FEIS contains no information supporting the proposition that construction of a major highway through the TMC would not defeat this initial purpose of the property. After reviewing the Final Tier 1 EIS/Preliminary 4(f) Analysis and after considerable review of the TMC's historic purpose, the BOR lacks sufficient information to conclude that it could grant the right-of-way through the TMC that would be required to implement the Preferred</p>	email	Tryon_DOI_1826	1826

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			<p>Alternative West Option (BOR, 1983; FWS, 1984; BOR, 1985; BOR, 1990; and, BOR, 2020). At this time, the BOR does not believe the adverse impacts of a surface-level or elevated highway through the TMC can be mitigated in a manner that avoids defeating the purpose for which the TMC was acquired. Further, the BOR questions whether an underground highway beneath the TMC, with necessary surface features for ventilation and emergency access, could be designed in a manner that does not defeat that purpose.</p> <p>The FWCA also requires that “the use of such waters, land, or interests therein for wildlife conservation purposes shall be in accordance with general plans approved jointly.” (16 U.S.C. 663(b)). The BOR and several partner agencies executed the TMC’s Master Management Plan in 1990 (BOR, 1990). Management goals and actions within the TMC’s Master Management Plan include: 1(a) Compensate for wildlife movement disruptions caused by aqueduct construction by providing an undeveloped wildlife movement corridor between the Tucson Mountains and the Nation to the west; 1(c) Compensate for wildlife habitat lost due to aqueduct construction by prohibiting deleterious activities within the area boundaries; and, 2(a) Prohibit any future developments within the area other than existing wildlife habitat-improvements described above or future wildlife improvements, management, or developments agreed to by the BOR, Arizona Game and Fish Department, FWS, and Pima County. The FEIS does not discuss the TMC’s Master Management Plan or its implications for the proposed development of a major highway through the TMC.</p> <p>The Council on Environmental Quality NEPA Regulations state the proposed action should identify “Possible conflicts between the proposed action and the objectives of Federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned.” (40 CFR §1502.16). The BOR’s comments on the Draft EIS requested such an analysis. The Final EIS only mentioned that, “During Tier 2 the existing and applicable land management plans would be reviewed and evaluated in the comparison of alternatives, and ADOT will continue to coordinate with appropriate land managing agencies.” The BOR believes that known issues regarding the consistency of an alternative with land management plans should be identified and discussed in the Tier 1 EIS to adequately inform the decision maker of these important concerns. An EIS and Record of Decision should document compliance with all applicable environmental laws or provide reasonable assurance their requirements can be met (23 CFR §771.125 and §771.133). The EIS does not describe how compliance with the FWCA or the TMC’s Master Management Plan would be achieved with respect to the Preferred Alternative West Option.</p> <p>The Tucson Mitigation Corridor and Gene Flow</p> <p>Wildlife movement, wildlife connectivity, and connectivity are synonymous and are a general scientific concept that describes movement among habitat blocks and the multiple biological and ecosystem processes occurring in those blocks. Among those processes, promoting, and maintaining normal gene flow through long-term movements, while avoiding genetic isolation of populations, is the principal process of connectivity and a primary initial purpose for the acquisition of the TMC (FWS, 1984; Slatkin, 1985; Slatkin, 1987; Epps et al., 2005; Latch and Rhodes, 2005; Keuhn et al., 2007; Corlatti et al., 2009; Holderegger and Giulio, 2010; Menchaca et al., 2019; Jackson and Fahrig, 2011; Sawaya, 2014; Waits et al., 2016; and, others).</p> <p>The FWS has historically used and continues to use gene flow as a measure of effective connectivity in its species recovery plans. For example, gene flow monitoring is a component of the recovery plan for the jaguar (<i>Panthera onca</i>), ocelot (<i>Leopardus pardalis</i>), and Sonoran pronghorn (<i>Antilocapra americana sonoriensis</i>) (FWS, 2016a; FWS, 2016b; and, FWS, 2016c). All three are found within southern Arizona where fragmentation and inadequate gene flow are among the most significant threats to those species.</p> <p>Maintaining and confirming normal gene flow to the Tucson Mountains is important because small and isolated populations become vulnerable to stochastic event processes that normally pose little threat to larger populations. Some populations within Saguaro National Park (NP) and Tucson Mountain Park are becoming vulnerable to extirpation and the reduced possibility of recolonization. Populations within the Tucson Mountains are at risk because the mountain range is almost completely surrounded by some form of development (NPS, 1995).</p> <p>During the transition in the I-11 Tier 1 EIS process from a Programmatic Net Benefit Evaluation to an Individual Section 4(f) Evaluation, the BOR provided supplemental comments in a January 2, 2020, letter that gave information on normal gene flow and its purpose for the TMC which was documented several years prior to its establishment in 1990 (BOR, 2020). Upon review of the Administrative Final Tier 1 EIS, the BOR noted that information within the letter was not incorporated.</p> <p>When submitting comments on the Administrative Final Tier 1 EIS, the BOR recommended the language identified in the January 2020 letter be incorporated. Within our comments there were 11 locations where the term “normal gene flow” was requested to be incorporated into sections addressing the TMC. The recommendations were responded to with: (1) “GlobalTopic_3 No change made” which describes it as a minor comment and not pertinent to the decision-making process, and (2) “GlobalTopic_1 Gene flow is just one aspect used to evaluate the impact of barriers to wildlife movement. The Department has committed to wildlife movement studies prior to the Tier 2 process. These studies will allow for biologists to establish a baseline and better assess wildlife movement through the proposed corridors. No change made.” Gene flow and normal gene flow was also mentioned 13 other times where it was also not included. Gene flow as an underlying purpose of the TMC to the Tucson Mountains and Saguaro NP is the only proven method to determine corridor success (BOR, 1983; FWS, 1984; BOR, 1985; BOR, 1990; and, BOR, 2020). Animal presence or use of a corridor is not a good measure of corridor success to animal populations (Seth et al., 2006; Strasburg, 2006; Corlatti et al., 2009; Lesbarreres and Fahrig, 2012; A. van der Gift et al., 2013; Gregory and Beier, 2014; Sawaya et al., 2014; and, Soanes et al., 2018).</p> <p>For example, without information on genetic connectivity, an individual crossing a wildlife overpass leaves little to no trace on whether its attempted movement, occupation, and reproduction in new habitat was successful. A study by Seth et al. (2006) documented that methods such as radio/GPS telemetry are extremely limited and by themselves not capable of confirming success of gene flow at crossing structures. They found that observed migration rates of coyotes (<i>Canis latrans</i>) and bobcats (<i>Lynx rufus</i>) across the Ventura Freeway in southern California was a poor surrogate for evaluating gene flow. While the study did document mild levels of migration, populations on either side of the freeway were genetically differentiated and implied that individuals who crossed rarely reproduced (Seth et al., 2006). A corridor may also be occupied by a population that does not interact with populations in other or adjacent habitat blocks (e.g., the corridor acts as a sink for surplus individuals from those habitat blocks) (Gregory and Beier, 2014). Additionally, multiple researchers who study wildlife crossings stated that research has done little to verify their effectiveness, because use of crossings does not equate to their effectiveness for facilitating gene flow (Seth et al., 2006; Strasburg, 2006; Corlatti et al., 2009; Lesbarreres and Fahrig, 2012; A. van der Gift et al., 2013; Gregory and Beier, 2014; Sawaya et al., 2014; and, Soanes et al., 2017). The Tier 1 and Tier 2 NEPA analysis for the southern segment of the proposed I-11 corridor should address the importance of gene flow as a primary purpose of the TMC and gene flow as the appropriate measure of the effectiveness of crossings.</p> <p>Not addressing comments on gene flow minimizes the role of the TMC and its identified function as the primary wildlife corridor of the Tucson Mountains which is accomplished through maintaining and promoting normal gene flow while avoiding genetic isolation of populations. The role of the BOR as the owner or administrator of the TMC, and thus the Section 4(f) official with jurisdiction, is to inform FHWA of the significance and function of the Section 4(f) property which is the TMC (23 CFR 774.11). In Section 4(f) regulations at 23 CFR 774.11 it states that “The determination of which lands so function or are so designated, and the significance of those lands, shall be made by the official(s) with jurisdiction over the Section 4(f) resource”. The importance of that requirement is to accurately and fully document the significance of the Section 4(f) property, which requires understanding and documenting its “function and value” (FHWA, 2012) (BOR, 1983; FWS, 1984; BOR, 1985; and, BOR, 2020). The “attributes” of a Section 4(f) property must be understood if FHWA is to properly evaluate it and compare it to other Section 4(f) properties for an Individual Section 4(f) Evaluation (FHWA, 2012). Part of the evaluation and process is “minimizing harm” and developing “comparable mitigation measures” while also “avoiding under-mitigating” another alternative (FHWA, 2012).</p> <p>Given the impacts of highways on wildlife, this would result in the construction of a second linear barrier and the BOR believes that development of an I-11 corridor would contradict the initial purpose of the TMC and result in adverse effects on wildlife in the Tucson Mountains, potentially contributing to extirpation of species from Saguaro NP. Species within Saguaro NP that are particularly vulnerable to extirpation due to isolation include kit foxes, badgers, antelope jackrabbit, sidewinders, desert iguanas, and a number of smaller animals (Swann et al., 2018). If these small populations “blink out” due to stochastic processes, they may never be replaced if animals do not move back into the area and become established.</p> <p>National Park Service Comments</p> <p>The NPS has management responsibility for Saguaro National Park (NP) and the federally designated Saguaro Wilderness. As reflected in NPS’ comments on the Administrative FEIS, the Preferred Alternative – West Option has the potential to significantly impact multiple resources under NPS management. The Preferred Alternative - West Option will occur 0.3 miles from Saguaro NP and 0.6 miles from the federally designated Saguaro Wilderness, and has the potential to threaten the natural, cultural, and recreational experiences these areas provide the public. The NPS looks forward to the opportunity to gain a better understanding of the connectivity</p>			

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			<p>between the I-11 corridor and the separate Sonoran Corridor project proposed by FHWA. By analyzing the potential for increased traffic, utilities, and multimodal uses through the Affected Environment in the I-11 Tier 2 NEPA document, the NPS may better understand how that will impact NPS resources near Saguaro NP.</p> <p>Preliminary Section 4(f) Evaluation</p> <p>The NPS believes that the proximity of the western Preferred Alternative to Saguaro NP (0.3 mi) and the federally designated Saguaro Wilderness (0.6 mi) would meet the Section 4(f) definition of a Constructive Use by causing substantial impairment to the core purposes for which these areas were protected by Congress. The NPS disagrees with FHWA's classification of Saguaro NP as a recreation area and to not apply the Ecological Intrusion criterion to Saguaro NP and Saguaro Wilderness. Per 23 CFR 774.11(d), "the determination of which lands so function or are so designated, and the significance of those lands, shall be made by the official(s) with jurisdiction over the Section 4(f) resource." As the official with jurisdiction, NPS believes the Section 4(f) evaluation does not identify all the current activities, features, and attributes that may be sensitive to proximal project impacts and which qualify Saguaro NP for protection under Section 4(f).</p> <p>The ADOT does not address this concern, stating in the Constructive Use analysis that: Saguaro National Park is managed as a public park and for natural resource preservation; it is not a wildlife or waterfowl refuge. For this reason, this criterion [Ecological Intrusion] does not apply to Saguaro National Park. However, at a distance of 200 feet from the Tucson Mountain Park Historic District which is partially within Saguaro NP, the Preferred Alternative – West Option could result in an adverse effect to historic properties. The summary paragraph for the National Register nomination form (provided to FHWA/ADOT on February 17, 2021) states that "The creation of the [Tucson Mountain] park was seen as a way to preserve a large tract of undeveloped wilderness just outside the city." The Preferred Alternative – West Option (including interstate, rail, and utility corridor) could negatively impact and diminish historically significant attributes of the district, including the cultural and environmental context in which many of the historic sites and visitor use areas promote public appreciation and conservation of the distinctive natural landscape.</p> <p>As outlined in 23 CFR 774.15, all reasonably foreseeable indirect impacts to visitor use and the cultural and natural resources that contribute to the site's significance should be considered for both Saguaro NP and the Tucson Mountain Historic District in the Final Section 4(f) Evaluation. The NPS noted that FEIS Table 4-6 Summary of Comments from Officials with Jurisdiction over Section 4(f) Properties does not include recent correspondence from the Department regarding the administrative FEIS (February 10, 2021) and the Section 4(f) review (February 26, 2021). Please update the table to include all relevant 2021 correspondence regarding jurisdiction over Section 4(f) properties. Should this project advance to a Tier 2 phase, Saguaro NP looks forward to formally working with FHWA/ADOT to comprehensively analyze the impacts on resources within our jurisdiction which qualify for protections under Section 4(f) and the associated impacts to our diverse user groups.</p> <p>Fish and Wildlife Service Comments</p> <p>The FWS reviewed all previous drafts of the EIS, identified several concerns and provided thorough comments. They are part of the FHWA administrative record for the I-11 project. In several instances, specific FWS's concerns were stated, and the FWHA's response was "No response needed." The FWS feels that those responses do not adequately address its concerns. The FWS requests that its concerns be reconsidered and adequately addressed in the FEIS.</p> <p>Thank you for the opportunity to provide comments and your continued attention to important resources. If you have any questions related to the BOR specific comments, please contact Mr. Sean Heath at 623-773-6250 or via email sheath@usbr.gov. For questions regarding NPS comments, please contact Leah McGinnis, Superintendent (520-733-5101 or leah_mcginnis@nps.gov) or Jeff Conn, Chief of Science and Resource Management (520-286-7743 or jeffery_conn@nps.gov). To discuss FWS comments please contact Bob Lehman at 602-242-0210 or via email robert_lehman@fws.gov.</p>			
Whitlock	Janet	DOI	<p>Hi Aryan,</p> <p>Please also accept the attachments to our comment letter on the FEIS. Please let me know if you have questions.</p> <p>Janet Whitlock</p> <p>Regional Environmental Officer; CA, NV, AZ and Pacific Islands (Regions 8, 10, and 12)</p> <p>Office of Environmental Policy and Compliance</p> <p>US Department of the Interior</p> <p>2800 Cottage Way, Room E-1712</p> <p>Sacramento, CA 95825</p> <p>(916) 978-5677 (work)</p> <p>(415) 420-0524 (cell)</p> <p>-----</p> <p>February 10, 2021</p> <p>Dear Ms. Petty:</p> <p>The Department of the Interior (Department) has reviewed the Federal Highway Administration (FHWA) and the Arizona Department of Transportation's (ADOT) Administrative Final Tier 1 Environmental Impact Statement (AF EIS), dated January, 2021, and provides the following comments on behalf of its bureaus: the US. Bureau of Reclamation (Reclamation), the US. Fish and Wildlife Service (FWS), the US. Bureau of Land Management (BLM), and the National Park Service (N PS). The Department has not included comments on the preliminary Section 4(f) evaluation (Chapter 4 of the AFEIS) in this review as FHWA indicated that Cooperating Agencies shall have 45 days to comment on the preliminary Section 4(f) evaluation and 30 days for the remaining chapters. The Department will provide comments on the Section 4(f) evaluation and Chapter 4 under a separate cover letter and matrix within the 45-day timeframe.</p> <p>General Comments</p> <p>Correction of the Record</p> <p>We would like to correct the record during the Special Study Session held by ADOT and the Tucson Mayor and City Council on June 18, 2019. During the meeting, the ADOT Representative was asked Which agencies support the Recommended Alternative through the Avra Valley. The ADOT representative responded that there is consensus from, ". . .basically every agency within the Department of the Interior". (see minute 3:01; <a href="https://www.tucsonaz.gov/tv12/tucson-mavor—council-meeting-study-session—iune-18-2019">https://www.tucsonaz.gov/tv12/tucson-mavor—council-meeting-study-session—iune-18-2019</a>). DOI Bureaus discussed this comment at an in—person meeting with ADOT and F HWA on August 14, 2019, and were assured that ADOT staff would follow up with the City of Tucson to correct the record. The Bureaus have not received confirmation of the correction and seek confirmation that ADOT and/or FHWA provided the correct information to the Mayor and the City Council and that ADOT and/or FHWA representatives did not make similar mischaracterizations to other municipalities, groups, or individuals. As Cooperating Agencies, the Bureaus prefer to speak on our own behalf for this project.</p> <p>Level of Analysis West Option vs East Option</p> <p>The Department notices that the AF EIS frequently offers greater analysis of the Preferred Alternative — West Option as the Recommended Alternative but does not present similar information for the Preferred Alternative - East Option, and at times, little to no information for comparison is provided. For example, capital cost information is provided for the East Option on page 4-94, but no information for comparison is provided for the West Option even though its estimated cost is higher. Economic benefits in the Sahuarita to Marana segment are only provided for the West Option, but none are given for the East Option (6.g. p. 3.6-4). While detailed mitigation is provided for the Tucson Mitigation Corridor (TMC), a Section 4(1) property along the West Option but not for any of the Section 4(t) properties on the East Option. Additionally, an attempt was made to pursue a Programmatic Net</p>	email	Whitlock_DOI Feb2021_1854	1854

Last Name	First Name	Organization	Submission	Method	Attachment	Tracking ID
			<p>Benefit for the TMC but not for the David G. Herrera and Ramon Quiroz Park which is located on the East Option. As FHWA moves forward to study both alternatives in the Tier 2 study, both NPS and Reclamation look forward to collaborating to ensure uniform and balanced analyses is presented so that the public and decision makers understand the economic benefits and environmental cost of all alternatives.</p> <p><b>Bureau Specific Comments</b></p> <p>Bureau of Land Management</p> <p>The BLM Hassayampa Field Office prefers the Orange Alternative analyzed in the DEIS in the Northern Section of the analysis area because it avoids the Vulture Mine Recreation Management Zone (VMRMZ), an approximately 70,000-acre ELM-administered area. While the Preferred Alternative uses a ELM-identified multi—use corridor, it also bisects the VMRMZ and an identified racecourse for off-highway vehicles within it. Maintaining access and wildlife connectivity to both sides of the VMRMZ would require significant mitigation, and while the AFEIS makes mitigation commitments for the racecourse, the BLM prefers total avoidance of the VMRMZ. The Orange Alternative, specifically Segment S, provides similar utility as the Recommended Alternative while avoiding these impacts to recreation. BLM has noted this preference in past comments throughout the project, most recently on the Draft EIS.</p> <p>Bureau of Reclamation</p> <p>Reclamation continues to be concerned about the potential impact of noise on the TMC from the West Option alternative. The TMC is a highly sensitive and critical area that functions as the primary wildlife movement corridor for the Tucson Mountains and Saguaro National Park and Tucson Mountain Park which are found within. Research such as studies by McClure et al. (2013) reported that noise from roads is a major driver of effects on populations of animals and can lead to areas that are considered dead zones. Such dead zones are areas that species and populations avoid as a result of disturbances such as traffic noise, causing them to abandon and avoid those areas while devaluing and rendering habitat and its original purpose unsuitable. Reclamation wildlife biologists and partner agencies that assist in oversight of the TMC foresee a proposed 1-1] as decreasing the level of use of the TMC and its crossing structures by wildlife affecting the initial purpose of its acquisition.</p> <p>Reclamation identified in prior comments the location of Central Arizona Project (CAP) canal wildlife bridges and concrete overchutes near Segment U within the Hassayampa Plain and Tonopah Desert study area. Reclamation staff have monitored a diverse series of structures across the CAP canal for 3 years and have documented results showing that mule deer use individual structures as high as 411 times a month. Monitoring has also shown that human activity and nearby roads devalue the suitability of the bridges and overchutes resulting in reduced and recurring use as low as 510 crossings a month. We anticipate that we will publish these results in a report in 2021 or 2022. Based on this information, we anticipate that a new highway will result in reduced use of the existing overchutes and bridges. Therefore, Reclamation would require mitigation for the affected bridges and overchutes if the proposed action is constructed.</p> <p>Fish and Wildlife Service</p> <p>Tumamoc Globeberry</p> <p>The Tumamoc globeberry (Tumamoca maccougalez') was listed as endangered in 1986 and then delisted in 1993 after the acquisition and protection of the Tumamoc Preserves by Reclamation and the discovery of additional populations in the United States and Mexico. However, monitoring in recent years indicates serious declines are occurring in populations in Pima County. FWS is concerned about potential effects of the Sahuarita to Marana west option on lands set aside in Avra Valley to preserve populations of this species. FHWA and ADOT planners are aware this species occurs in Pima County but have only briefly mentioned it. There is no clear commitment in the AFEIS that surveys will occur, and no specific mitigation/conservation measures are proposed. FWS would appreciate additional details regarding ADOT/FHWA's intentions with regard to the globeberry in the final EIS (FEIS).</p> <p>Sonoran Desert Tortoise</p> <p>The Sonoran desert tortoise was removed from the candidate species list in 2015 and was returned to the candidate list in 2020 due to an August 3, 2020, court-approved settlement agreement (85 FR 73164). The existence and implementation of the 2015 Sonoran desert tortoise Candidate Conservation Agreement was a factor in not listing it as threatened or endangered. As a signatory to the 2015 Sonoran desert tortoise CCA, we trust that ADOT will comply with its conservation commitments.</p> <p>Pima Pineaggle Cactus</p> <p>The proposed action will almost certainly adversely affect the Pima Pineapple Cactus (PPC) at levels well above any other listed or candidate species in the study area. Second, mitigation and compensation for PPC losses will be possible only if losses do not involve a substantial proportion of the remaining PPC population, which is probably under 8,000 individuals, and to the extent that PPC conservation bank credits or mitigation lands are available for purchase. Third, ADOT and FHWA ultimately may need to choose among other corridor alternatives where PPC numbers are lower if they cannot effectively minimize, reduce, or eliminate adverse effects within the Preferred Alternative. Finally, we remind ADOT and FHWA, as we have in the past, that the goal of the Tier I/Tier 2 process, in the case of the PPC, is to avoid jeopardizing the species when we evaluate ADOT/FHWA's project under Section 7 of the Endangered Species Act. We strongly recommend PPC surveys in all corridor options and development of a preliminary mitigation/conservation plan at the earliest possible date. We also remind FHWA and ADOT that the west option of the Sahuarita to Marana segment may have more PPC and PPC habitat than any build corridor option considered in the draft and administrative final EISs.</p> <p>National Park Service</p> <p>General Comments</p> <p>As the federal agency with management responsibility for Saguaro National Park (Saguaro NP) and the federally-designated Saguaro National Wilderness, the NPS is mandated to protect these resources adjacent to the proposed project. The NPS provided comments during review of the Administrative Draft EIS in 2018, and the Draft EIS (DEIS) dated March, 2019, and continues to review relevant project materials as a cooperating agency under NEPA. The following comments, including attached matrix, are not only intended to supplement and identify outstanding concerns from NPS’ previously submitted review of the study, they also identify technical edits and consider further analyses that should be incorporated into the FEIS or initiation of the Tier 2 study.</p> <p>NPS appreciates ADOT/FHWA's decision to carry the Preferred Alternative — East Option forward for further analysis in Tier 2. As reflected in NPS’ comments on the DEIS, the former Recommended Alternative (now Preferred Alternative — West Option) has the potential to significantly impact multiple resources, requiring firther mitigations than the measures proposed in the AFEIS. The proposed Preferred Alternative - West Option will occur .3 miles from Saguaro NP and .6 miles from the federally-designated Saguaro Wilderness, and has the potential to threaten the natural, cultural, and recreational experiences these areas provide the public. Additionally, the TMC is essential for maintaining biodiversity within the Park and continuing local biological mitigation efforts in Pirna County.</p> <p><b>Specific Comments</b></p> <p><b>Air Qualzfi</b></p> <p>Because the I-11 NEPA review was conducted under the 1978 CEQ NEPA regulations, NPS believes the cumulative air quality effects from the FHWA Tier 1 Sonoran Corridor route should be addressed in the I-11 Final EIS or the Tier 2 study. While the AF EIS explains why the 3.9 mile connector near Marana is included as part of the 1-11 Preferred Alternative — West Option, the proposed Sonoran Corridor, which is being analyzed in a separate EIS, is a reasonably foreseeable multimodal transportation facility currently being planned that would affect air quality, including visibility, also affected by the I-11 proposal. As we noted in our comments on the Sonoran Corridor Tier 1 DEIS, we would appreciate the chance to meet with FHWA and ADOT to get a better understanding of the connectivity between these two projects, and the potential for increased traffic, utilities, and multimodal uses if both projects are built.</p> <p>Consistent with the 2020 CEQ NEPA regulations, we also believe the Sonoran Corridor proposal should be identified as a reasonably foreseeable future project in the affected environment of the Tier 2 I—11 NEPA review, and the resource trends it will create should be described and considered when assessing the effects of the I-11 project. The Tier 2 analysis commitments should also include a quantitative analysis of the air quality impacts that could result from induced growth from the Preferred Alternative — West Option on Saguaro NP. While the AFEIS notes that site-specific mitigation measures will be identified for sensitive viewpoints in the Tier 2 analysis, NPS</p>			

Last Name	First Name	Organization	Submission	Method	Attachment	Tracking ID
			<p>notes that measures for the Preferred Alternative — West Option will be particularly important since there is currently minimal development on this side of the park. Potential mitigation measures should also take into account the fact that viewpoints are generally located at a higher elevation than the proposed build corridor.</p> <p>Historic Properties and Structures</p> <p>As of 2020, the 28,708—acre Tucson Mountain Historic District was determined eligible for listing on the National Register of Historic Places by the Arizona State Historic Preservation Office (SHPO). This district is directly adjacent to the western alignment of I-19, and roughly encompasses the original footprint of Tucson Mountain Park, now managed by the National Park Service and Pima County. The Historic District spans the Tucson Mountains, including sections of Saguaro National Park. At the closest point, the western Preferred Alternative is 200 feet from the Historic District, and, as stated in the 2020 Determination of Eligibility form, “[t]he creation of the park was seen as a way to preserve a large tract of undeveloped wilderness just outside the city” and to designate a “county wildlife refuge.”</p> <p>NPS recognizes that the FHWA Class I Overview for Tier 1 Planning for Interstate 11: Historic Districts and Buildings Supplement (November, 2020) was provided to address deficiencies and identify historic properties in the 2019 Tier 1 DEIS and draft 4(f) Evaluation. NPS appreciates this supplementary information, and would like to work with FHWA to address the Tucson Mountain Historic District and better identify its geospatial proximity to the Preferred Alternative — West Option. The NPS has the opportunity to share the description of this Historic District as it relates to the proposed alternatives, and, given our special expertise related to this resource, would like to work with FHWA/ADOT to determine how impact analysis and mitigations for consideration may be further addressed in the Tier 2 study.</p> <p>Wildlife</p> <p>The NPS has outstanding concerns about loss of species in Saguaro National Park, as expressed in NPS comments to the DEIS. NPS is responsible for wildlife within its jurisdiction and the NPS Organic Act specifically protects wildlife in national parks, as NPS addressed in the DEIS in 2019. Although the NPS is listed as a Cooperating Agency, the AF EIS does not acknowledge the value of Saguaro National Park as a nationally-significant biological reserve or the many other NPS requests that FHWA/ADOT involve NPS biologists in design and review of Tier 2 studies that evaluate the relative impacts on biological resources of the two options in the Preferred Alternative in Pima County. We have been verbally assured that we would be invited to participate in these studies by ADOT but we would appreciate it if FHWA/ADO explicitly acknowledge this in the FEIS and Record of Decision.</p> <p>Natural Sounds</p> <p>As noted in past discussions and NPS comments on the Tier 1 DEIS, NPS believes current noise level increase predictions and other FHWA criteria (23 CFR 772) are not adequate for assessment of impacts on ambient sound levels in the Saguaro NP Tucson Mountain District. Although the AFEIS indicates the Preferred Alternative — West Option would not produce noise level increases in excess of applicable ADOT/FHWA noise abatement threshold, because there are no low noise, long-term baseline measurements in the vicinity, it is unknown if increases in noise levels from the I-19 project would exceed the applicable abatement threshold. We appreciate ADOT/FHWA's willingness to consider other criteria and to incorporate long-term acoustic ambient measurements from NPS into the Tier 2 analysis. The NPS is currently gathering new low noise Type 1 Sound Level Meter (SLM) data in the Saguaro NP Tucson Mountain District, and we respectfully request that ADOT/FHWA incorporate these additional acoustic criteria and new SLM data into the forthcoming Tier 2 analysis, including noise abatement determinations.</p> <p>Wilderness</p> <p>The effects described above to air quality, wildlife, and natural sounds, as well as effects described in the attached matrix, would degrade the wilderness character of the Saguaro Wilderness Area located within 0.6 miles of the Preferred Alternative — West Option. Specifically, the effects of this proposal, including sights and sounds, would degrade the natural and undeveloped character of wilderness, opportunities for primitive and unconfined recreation, and opportunities for solitude. Considering the combination of the Tucson Mountain Park Historic District, the Saguaro Wilderness Area (1976), and Congress' stated intent to protect opportunities for solitude within the wilderness areas of Saguaro NP (Public Law 103 -364), the NPS believes that the FEIS and Tier 2 study should acknowledge that Saguaro NP and its designated wilderness meet the sensitive land use criteria of 23 CFR 774.15. The NPS would be happy to share information about Saguaro NP wilderness character as it relates to the proposed alternatives, and given our special expertise regarding this resource, looks forward to working with FHWA/ADOT to ensure the effects are appropriately analyzed in the Tier 2 analysis. In addition to the comments above, the Bureaus have provided detailed comments in the Attachments to this letter as follows:</p> <p>0 Attachment 1 — Comments from the BLM on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate I-19 Corridor between Nogales and Wickenburg, Arizona.</p> <p>0 Attachment 2 — Comments from Reclamation on the Administrative Final Tier I Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.</p> <p>0 Attachment 3 — Comments from FWS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.</p> <p>0 Attachment 4 — Comments from NPS on the Administrative Final Tier I Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.</p> <p>Thank you for the opportunity to provide comments on this AFEIS. The Department and bureaus are available to meet to clarify any of our comments or recommendations and to further assist the FHWA and ADOT with the identification of appropriate measures for the benefit of wildlife. For questions regarding specific comments please contact: Mr. Lane Cowger with BLM at 602-417- 9612 or via email at lcowger@blm. gov; Mr. Bob Lehman with FWS at 602-242-0210 or via email at Robert_Lehman@fws. gov; Mr. Jeff Conn with NPS at 623-773-6250 or via email at jeffery_conn@nps. gov; Mr. Sean Heath with Reclamation at 623 -773-6250 or via email at sheath@usbr. gov. For all other comments or questions please contact me at 415-420-0524 or Via email at janet_whitlock@ios.doi. gov.</p>			



August 13, 2021

Ms. Karla S. Petty  
Arizona Division Administrator  
Federal Highway Administration  
4000 N. Central Ave., Suite 1500  
Phoenix, AZ 85012

Electronically submitted to: [Aryan.lirange@dot.gov](mailto:Aryan.lirange@dot.gov) and [jvanecho@azdot.gov](mailto:jvanecho@azdot.gov)

**RE: Interstate 11 Final Tier 1 Environmental Impact Statement (FEIS) and Preliminary Section 4(f) Evaluation (Federal Aid No. 999-M(161)S; ADOT Project No. 999 SW 0 M5180 01P) (July 16, 2021)**

Dear Ms. Petty:

The Arizona Game and Fish Department (Department) has worked cooperatively with the Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) throughout the Tier 1 NEPA process for the Interstate 11 (I-11) corridor. The Department has a key role in the conservation of wildlife populations and the habitats upon which these species rely in trust for the use and enjoyment of Arizona's citizens. The coordination with FHWA and ADOT throughout this planning process has provided opportunities for FHWA and ADOT to further the project's Purpose and Need, while addressing the conservation of wildlife and habitat at a landscape level.

Since the April 2019 public Draft Environmental Impact Statement (DEIS) was published, FHWA and ADOT have made significant changes to the project that address concerns brought forward by the Department, other Cooperating Agencies, as well as the public. These broad changes include 1) shifting to an alternative between Buckeye and Casa Grande that minimizes impacts to the Gila River corridor and its surrounding agricultural lands, 2) moving forward into the Tier 2 process with two alternatives between Marana to Sahuarita, allowing for a much more in-depth analysis and comparison of resources, and 3) adding more detail and clarity to the commitments that aim to avoid, minimize, and mitigate impacts to biological resources.

The Department supports FHWA and ADOT's decision to shift the location of the corridor segment between Buckeye to Casa Grande, to co-locate a portion of the corridor along existing facilities, i.e. Interstate 10 (I-10) and State Route 85 (SR 85). This co-location results in a significant reduction of potential impacts to sensitive resources found along the Gila River corridor, minimized impacts to 4(f) resources found within the corridor, and provides an opportunity to improve roadway safety. While the SR 85 will require upgrades to achieve Interstate design standards, it presents an opportunity to improve wildlife movement structures

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**azgfd.gov | 602.942.3000**

**5000 W. CAREFREE HIGHWAY, PHOENIX AZ 85086**

**GOVERNOR:** DOUGLAS A. DUCEY **COMMISSIONERS:** CHAIRMAN LELAND S. "BILL" BRAKE, ELGIN | JAMES E. GOUGHNOUR, PAYSON  
TODD G. GEILER, PRESCOTT | CLAY HERNANDEZ, TUCSON | KURT R. DAVIS, PHOENIX **DIRECTOR:** TY E. GRAY **DEPUTY DIRECTOR:** TOM P. FINLEY



and design along the route, decreasing wildlife-vehicle collisions and improving driver safety, while maintaining connectivity for habitat and wildlife populations.

In previous coordination and comment opportunities, the Department expressed concern about the level of studies and data needed for an equitable 4(f) comparison between the Avra Valley and downtown Tucson alternatives. While downtown Tucson is host to a number of historic properties, the Avra Valley is host to mitigation, water recharge, and conservation lands, some of which have not been analyzed as 4(f) properties, and much of the land has not yet been surveyed for cultural resources. Given the complexity of evaluating and comparing these 4(f) resources, the decision to move both routes forward into the Tier 2 process provides the time for more thorough studies and analysis to be conducted, and the significance and character of resources along each route to be better understood. One issue that needs particular attention and resolution is the use of the Tucson Mitigation Corridor (TMC):

- According to information presented in the Final EIS and the Section 4(f) Evaluation, the Preferred Alternative West Option through the TMC would likely result in permanent adverse impacts to the primary function of the TMC. The Fish and Wildlife Coordination Act (FWCA) of 1958 (PL 85-624, 16 U.S.C. 661 et seq.) requires that “lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)].” The TMC was established under the authority of the FWCA “[t]o mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west.” While the mitigation commitments identified in Table 7.1 lay the groundwork for minimizing impacts associated with the construction of an interstate highway, it remains unclear how the adverse impacts of I-11 through the TMC can be mitigated in a manner that avoids defeating the purpose for which the TMC was acquired.

The Department understands that the preparation of a NEPA document for a Tier 1 process, which provides landscape-level planning, can pose challenges when making mitigation commitments; specifically, without dedicated funding in place there are limitations on the scope and scale of commitments that can be included into the Tier 1 process. The Department appreciates the level of clarity and detail provided in the mitigation commitments for impacts to biological resources, including the commitment for pre-Tier 2 surveys, ongoing coordination throughout the Tier 2 effects analyses and design phases, and recognizing Arizona Game and Fish Commission Policy A1.9, and Department Policy I2.3, that seek compensation for actual or potential habitat losses resulting from land and water projects. The Department looks forward to seeing these commitments included in the Tier 1 Record of Decision (ROD) and implemented prior to Tier 2 analyses, during Tier 2 design and NEPA processes, during construction, and finally, during post-construction monitoring and fulfillment of habitat conservation commitments.



August 13, 2021

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The Department also noted ADOT/FHWA's commitment to evaluate impacts on outdoor recreation and the overall regional economy by using recent, relevant outdoor recreation data such as the Bureau of Economic Analysis's Outdoor Recreation Satellite Accounts. In addition to an examination of how the Tier 2 projects will affect recreation along the corridor, and the economic impacts of those effects, the need for continued or improved public access to recreation lands is also an important element to consider during siting and design of the facilities. The Department looks forward to coordinating regarding recreation access moving forward into the Tier 2 processes.

The Department remains committed to working with ADOT and FHWA as the Segments of Independent Utility move forward into the pre-Tier 2 studies and the Tier 2 NEPA processes. If you have any questions or wish to further discuss our comments and concerns, please contact Cheri Bouch r at [cboucher@azgfd.gov](mailto:cboucher@azgfd.gov) or 623-236-7615.

Sincerely,

A handwritten signature in black ink, appearing to read 'Clay Crowder', with a stylized, cursive script.

Clay Crowder  
Assistant Director, Wildlife Management Division

AGFD # M21-07160359

cc: Aryan Lirange, Federal Highway Administration  
Jay Van Echo, Arizona Department of Transportation



United States  
Department of  
Agriculture

Forest  
Service

Coronado National Forest  
Supervisor's Office

300 West Congress St.  
Tucson, AZ 85701  
520-388-8300  
Fax: 520-388-8305

File Code: 1900  
Date: August 11, 2021

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

Dear Mr. Lirange:

The Coronado National Forest (CNF) appreciates the opportunity to comment on the Final Tier 1 Environmental Impact Statement for the Interstate 11 Corridor between Nogales and Wickenburg, Arizona. The comments below comprise my response to your request for feedback on the Preferred Alternative and contents of the Final Tier 1 EIS. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA) (42 USC 4321, et seq) and were evaluated under the guidance of the 2018 Coronado National Forest Land and Resource Management Plan (Forest Plan) and with consideration of our partners.


As stated during previous comment opportunities, the CNF does not support any proposed plan in which any portion of the proposed Interstate 11 corridor may cross National Forest System lands. According to the Preferred Alternative, Pima County will retain an east and west option. Given these options, the CNF supports the east option which is co-located with I-10 and I-19. While the east option will have adverse impacts, this option best supports our partners and better avoids significant adverse impacts to sensitive biological resources in the area, including vegetation and wildlife habitat, threatened and endangered species, and scenic resources than the west option.

The concept of preserving open space is widely recognized as a primary tool for sustaining ecosystem components and processes across landscapes and is one of the driving issues of the Forest Plan. Therefore, we do not support the west option in Pima County as part of the Preferred Alternative. While the Final Tier 1 EIS states that both options are retained to make a more informed decision, we believe that the impacts of the west option do not warrant further examination or field studies due to the predicted significant negative impacts across all resource areas. We also recognize the impacts that our partners would suffer under the west option including the National Park Service, Bureau of Land Management, Bureau of Reclamation, and other state and county agencies. The CNF continues to support all options that will maximize co-location of existing roads and prioritize habitat connectivity, minimize the chances of genetic isolation of wildlife, and minimize impacts to wilderness character.

While the CNF recognizes that the Forest Plan only applies to U.S. Forest Service National Forest System lands, the success of meeting the desired conditions extends beyond the forest boundaries. The CNF believes in the need to work in partnership with other entities to sustain the natural and social environments of our shared communities. All agencies and nongovernmental organizations that manage wildlife, fish, rare plants, and their habitats need to work together as complete partners, rather than relying on an individual group or agency to bear the burdens of management and conservation. The CNF continues to stand with our partners that are working towards a shared mission of the natural and social environments and supports the comments submitted by Saguaro National Park, Bureau of Land Management, and Bureau of Reclamation. This includes our continued stance that the assessment of constructive use in the 4(f) analysis for Saguaro National Park is flawed and does not capture the level of severe negative impacts that the Park would sustain if the west option were constructed.

The CNF looks forward to future coordination with FHWA and ADOT, and we continue to support your efforts in developing this corridor.

Sincerely,

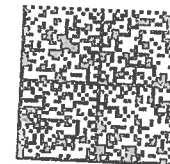
  
KURT DAVIS  
Deputy Forest Supervisor




**USDA FOREST SERVICE**  
Forest Supervisor Office  
Coronado National Forest  
Federal Building, 300 W. Congress FB42  
Tucson, AZ 85701

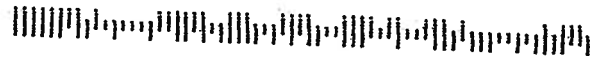
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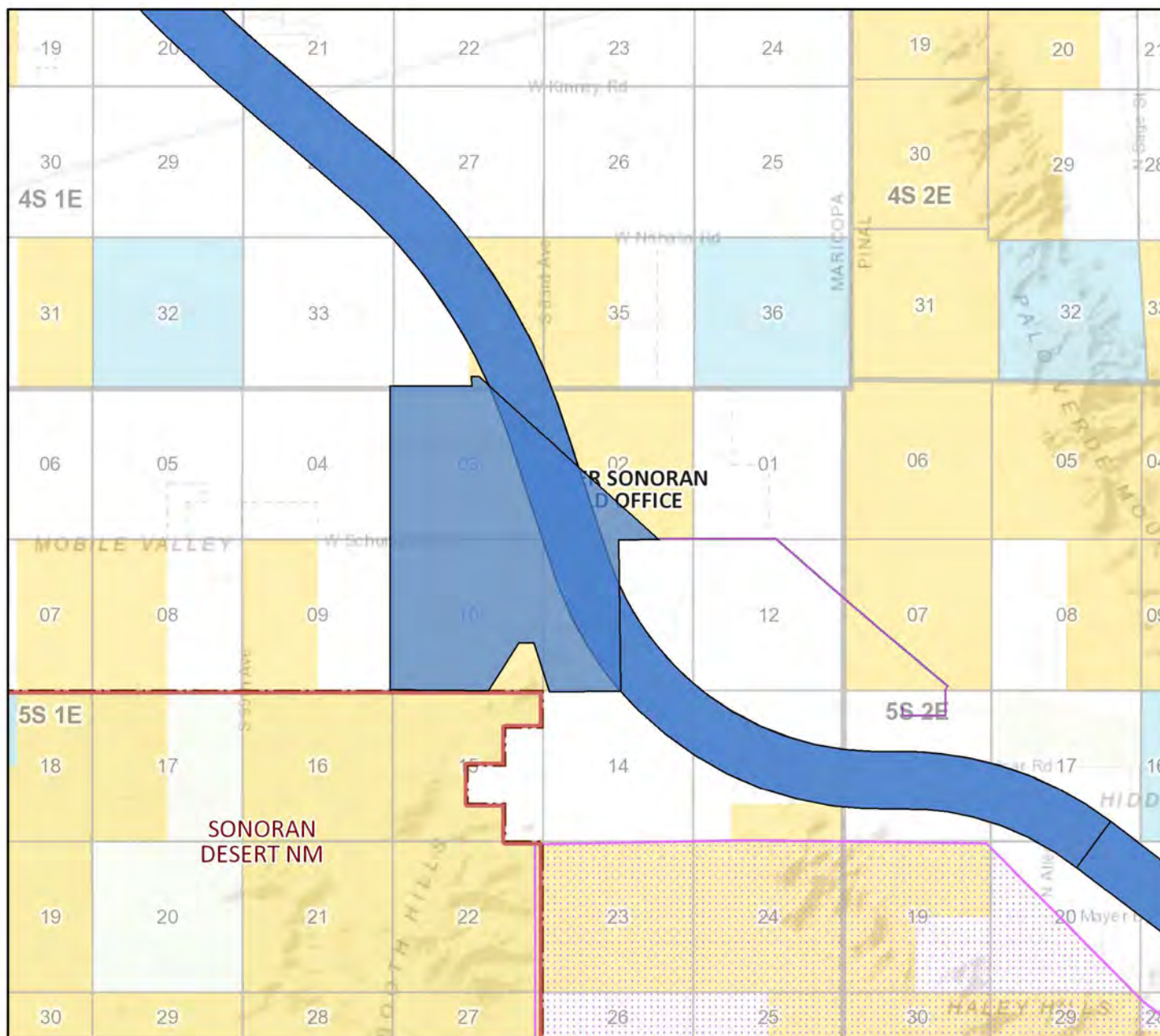
# I-11 Corridor & Pinyon Solar

Bureau of Land Management - Administrative Unit

Favour\_BLM\_2590

## Legend

- Pinyon\_Shapefiles\_062421 - Pinyon\_Project\_Area
- Pinyon\_Shapefiles\_062421 - Pinyon\_Prelim\_Gen\_Tie
- Preferred
- Alternative
- District Office Boundary
- Field Office Boundary
- National Monument
- National Conservation Area
- Wildlife Movement Corridor
- Townships

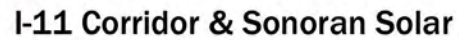


Map Produced by BLM Arizona  
Coordinate System:  
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Date: 7/30/2021

No warranty is made by the Bureau of Land Management (BLM) regarding the accuracy or completeness of this map. This map is representational and is to be used as intended by the BLM. Map data compiled from various sources. This map and the data from which it was derived are not binding on the BLM and may be revised at any time.



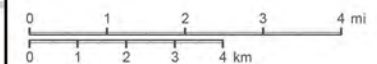




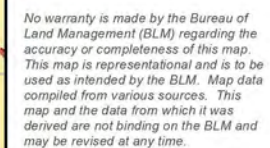
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- Sonoran\_solar
- Preferred
- Alternative

Sections



Map Produced by BLM Arizona  
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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 9**

**75 Hawthorne Street  
San Francisco, CA 94105-3901**

August 16, 2021

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

John S. Halikowski  
Director  
Arizona Department of Transportation  
206 South 17th Avenue, MD 100A  
Phoenix, AZ 85007

Subject: Final Tier 1 Environmental Impact Statement for the Interstate 11 Corridor Project (EIS No. 20210096)

Dear Division Administrator Petty and Director Halikowski:

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act.

Throughout programmatic analysis for the I-11 Corridor Project, EPA has provided written and verbal feedback to the Federal Highway Administration and Arizona Department of Transportation during monthly Cooperating Agency meetings and at multiple coordination points, including comments provided on the project Purpose & Need (December 28, 2016), Alternative Selection Report (November 3, 2017), Administrative Tier 1 DEIS (August 6, 2018), and Tier 1 DEIS (June 26, 2019). The extensive early coordination on the development of this Final Tier 1 EIS has resulted in efficiencies in the environmental review process and the early identification and resolution of many concerns previously raised by the EPA.

We are particularly encouraged that FHWA and ADOT have taken into consideration many of the comments provided by agencies and the public, and have identified a Preferred Alternative in this Final Tier 1 EIS that contains significant differences from the Recommended Alternative in the Draft Tier 1 EIS. Importantly, the Preferred Alternative greatly reduces potential impacts to Waters of the United States by avoiding a new crossing of the Santa Cruz River at Marana, and shifting the corridor away from a 12-mile stretch of braided channels and wetlands associated with the Santa Cruz River, Los Robles Wash, and Greene Canal. Further, the Preferred alternative shifts the corridor to co-locate with I-10 and SR-85 in Buckeye, thus avoiding the need for new crossings of the Gila and Hassayampa Rivers. We commend FHWA and ADOT for considering the importance of these resources and making these corridor shifts.

## **Recommendations for Future Project-level, Tier 2 NEPA Analyses**

We thank FHWA and ADOT for working so closely with our agency throughout the development of this Tier 1 EIS, and we look forward to continued coordination during Tier 2 studies as we strive to further avoid and minimize impacts to environmental resources of concern. In addition, we urge FHWA and ADOT to follow through with the many commitments made in the Tier 1 EIS. We encourage continued close coordination with regulatory agencies during the development of future environmental assessments and/or environmental impact statements to collaboratively identify specific project design commitments that, at the Tier 2 stage: 1) consider climate change impacts; 2) reduce impacts to environmental justice communities; and 3) minimize impacts to environmental resources to the greatest extent possible. EPA provides the following recommendations for future Tier 2 analyses:

- Identify early in the Tier 2 analysis process the most current climate change impact assessment methodologies and potential effects for each project area/region. Integrate climate change considerations into the entirety of the Tier 2 analysis process for each project segment, including during establishment of project purpose and need and development of project alternatives.
- Commit to a community engagement process that integrates accessibility and effective communication measures for meaningful involvement with all stakeholders, including tribal and indigenous peoples, and communities with environmental justice concerns. Include a robust environmental justice analysis that incorporates results into project design and decisionmaking. The EPA is available to assist with identifying tools and data sources for environmental justice analysis methodology when Tier 2 projects are initiated.
- Ensure that Tier 2 projects are implementing the commitments discussed above to avoid a new crossing of the Santa Cruz River at Marana and to avoid the need for new crossings of the Gila and Hassayampa Rivers. Demonstrate that all potential impacts to waters of the United States have been avoided and minimized to the maximum extent practicable. If these resources cannot be avoided, the project-level analyses should clearly demonstrate how cost, logistical, or technological constraints preclude avoidance and minimization of impacts.
- Identify all protected resources with special designations and all special aquatic sites and waters within state, local, and federal protected lands. Additional steps should be taken to avoid and minimize impacts to these areas.
- Identify avoidance and minimization measures for each alternative analyzed, and quantify the specific resources avoided, for example, acres of habitat avoided, acres of waters of the United States avoided, number of stream crossings minimized, etc.
- As committed to in the Tier 1 Final EIS, develop and fund wildlife movement and roadway mortality studies prior to Tier 2 analysis so that adequate data will be available to guide the development of appropriate mitigation measures, including appropriate siting and sizing of wildlife underpasses and overpasses along the future I-11 alignment. Disclose how the development of the I-11 corridor will affect wildlife movement and discuss how fencing for safety purposes will be integrated with proposed wildlife passages. Identify the connections that



would likely remain after construction of the corridor and highlight these areas as "connectivity zones" for protection and preservation. Explore opportunities for preservation of these corridors through mitigation and cooperative agreements.

If you have questions regarding our comments, please contact Clifton Meek, the lead reviewer for this project, at 415-972-3370 or meek.clifton@epa.gov.

Sincerely,

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**DUNNING**

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*for* Jean Prijatel  
Manager, Environmental Review Branch

Cc via email:

Aryan Lirange, Federal Highway Administration  
Alan Hansen, Federal Highway Administration  
Rebecca Yedlin, Federal Highway Administration  
Jay van Echo, Arizona Department of Transportation  
Jesse Rice, U.S. Army Corps of Engineers  
Cheri Boucher, Arizona Game and Fish Department





# United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, DC 20240

In Reply Refer to:  
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*Via Electronic Mail Only*

August 16, 2021

Ms. Karla Petty  
Division Administrator  
Federal Highway Administration  
4000 N. Central Ave., Suite 1500  
Phoenix, AZ 85012  
[Arizona.FHWA@dot.gov](mailto:Arizona.FHWA@dot.gov)

Subject: Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f)  
Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona

Dear Ms. Petty:

The Department of the Interior (Department) has reviewed the Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) Interstate 11 (I-11) Corridor Tier 1 Final Environmental Impact Statement (FEIS), dated July 2021, and provides these comments under environmental authorities, including the National Environmental Policy Act (NEPA), the Fish and Wildlife Coordination Act (FWCA), and Section 4(f) of the U.S. Department of Transportation Act on behalf of its bureaus: the Bureau of Reclamation (BOR), the National Park Service (NPS), and the U.S. Fish and Wildlife Service (FWS).

The Department provided comments during review of the Administrative Draft Environmental Impact Statement (DEIS) in 2018, DEIS dated March 2019, and Administrative FEIS January 2021. In the FEIS, FHWA/ADOT's preferred alternative includes both an East Option and West Option. The Department appreciates ADOT/FHWA's proposal to carry the Preferred Alternative – East Option forward for further analysis in Tier 2. The Department's bureaus continue to review relevant project materials as cooperating agencies under NEPA and provide the following outstanding concerns previously identified through review of the study which are not sufficiently resolved in the FEIS.

## ***Bureau of Reclamation Comments***

Based on the FEIS and the Section 4(f) Evaluation, the Preferred Alternative – West Option (the former Recommended Alternative) through the Tucson Mitigation Corridor (TMC) would result in permanent adverse impacts to the primary function of the TMC. The FWCA of 1958 (PL 85-624, 16 U.S.C. 661 et seq.) requires that “lands described herein for fish and wildlife purposes

shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)].” As identified in past correspondence, the TMC was established under the authority of the FWCA “[t]o mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west.”

The FEIS contains no information supporting the proposition that construction of a major highway through the TMC would not defeat this initial purpose of the property. After reviewing the Final Tier 1 EIS/Preliminary 4(f) Analysis and after considerable review of the TMC’s historic purpose, the BOR lacks sufficient information to conclude that it could grant the right-of-way through the TMC that would be required to implement the Preferred Alternative West Option (BOR, 1983; FWS, 1984; BOR, 1985; BOR, 1990; and, BOR, 2020). At this time, the BOR does not believe the adverse impacts of a surface-level or elevated highway through the TMC can be mitigated in a manner that avoids defeating the purpose for which the TMC was acquired. Further, the BOR questions whether an underground highway beneath the TMC, with necessary surface features for ventilation and emergency access, could be designed in a manner that does not defeat that purpose.

The FWCA also requires that “the use of such waters, land, or interests therein for wildlife conservation purposes shall be in accordance with general plans approved jointly.” (16 U.S.C. 663(b)). The BOR and several partner agencies executed the TMC’s Master Management Plan in 1990 (BOR, 1990). Management goals and actions within the TMC’s Master Management Plan include: 1(a) Compensate for wildlife movement disruptions caused by aqueduct construction by providing an undeveloped wildlife movement corridor between the Tucson Mountains and the Nation to the west; 1(c) Compensate for wildlife habitat lost due to aqueduct construction by prohibiting deleterious activities within the area boundaries; and, 2(a) Prohibit any future developments within the area other than existing wildlife habitat-improvements described above or future wildlife improvements, management, or developments agreed to by the BOR, Arizona Game and Fish Department, FWS, and Pima County. The FEIS does not discuss the TMC’s Master Management Plan or its implications for the proposed development of a major highway through the TMC.

The Council on Environmental Quality NEPA Regulations state the proposed action should identify “Possible conflicts between the proposed action and the objectives of Federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned.” (40 CFR §1502.16). The BOR’s comments on the Draft EIS requested such an analysis. The Final EIS only mentioned that, “During Tier 2 the existing and applicable land management plans would be reviewed and evaluated in the comparison of alternatives, and ADOT will continue to coordinate with appropriate land managing agencies.” The BOR believes that known issues regarding the consistency of an alternative with land management plans should be identified and discussed in the Tier 1 EIS to adequately inform the decision maker of these important concerns. An EIS and Record of Decision should document

compliance with all applicable environmental laws or provide reasonable assurance their requirements can be met (23 CFR §771.125 and §771.133). The EIS does not describe how compliance with the FWCA or the TMC's Master Management Plan would be achieved with respect to the Preferred Alternative West Option.

### The Tucson Mitigation Corridor and Gene Flow

Wildlife movement, wildlife connectivity, and connectivity are synonymous and are a general scientific concept that describes movement among habitat blocks and the multiple biological and ecosystem processes occurring in those blocks. Among those processes, promoting, and maintaining normal gene flow through long-term movements, while avoiding genetic isolation of populations, is the principal process of connectivity and a primary initial purpose for the acquisition of the TMC (FWS, 1984; Slatkin, 1985; Slatkin, 1987; Epps et al., 2005; Latch and Rhodes, 2005; Keuhn et al., 2007; Corlatti et al., 2009; Holderegger and Giulio, 2010; Menchaca et al., 2019; Jackson and Fahrig, 2011; Sawaya, 2014; Waits et al., 2016; and, others).

The FWS has historically used and continues to use gene flow as a measure of effective connectivity in its species recovery plans. For example, gene flow monitoring is a component of the recovery plan for the jaguar (*Panthera onca*), ocelot (*Leopardus pardalis*), and Sonoran pronghorn (*Antilocapra americana sonoriensis*) (FWS, 2016a; FWS, 2016b; and, FWS, 2016c). All three are found within southern Arizona where fragmentation and inadequate gene flow are among the most significant threats to those species.

Maintaining and confirming normal gene flow to the Tucson Mountains is important because small and isolated populations become vulnerable to stochastic event processes that normally pose little threat to larger populations. Some populations within Saguaro National Park (NP) and Tucson Mountain Park are becoming vulnerable to extirpation and the reduced possibility of recolonization. Populations within the Tucson Mountains are at risk because the mountain range is almost completely surrounded by some form of development (NPS, 1995).

During the transition in the I-11 Tier 1 EIS process from a Programmatic Net Benefit Evaluation to an Individual Section 4(f) Evaluation, the BOR provided supplemental comments in a January 2, 2020, letter that gave information on normal gene flow and its purpose for the TMC which was documented several years prior to its establishment in 1990 (BOR, 2020). Upon review of the Administrative Final Tier 1 EIS, the BOR noted that information within the letter was not incorporated.

When submitting comments on the Administrative Final Tier 1 EIS, the BOR recommended the language identified in the January 2020 letter be incorporated. Within our comments there were 11 locations where the term "normal gene flow" was requested to be incorporated into sections addressing the TMC. The recommendations were responded to with: (1) "GlobalTopic\_3 No change made" which describes it as a minor comment and not pertinent to the decision-making process, and (2) "GlobalTopic\_1 Gene flow is just one aspect used to evaluate the impact of barriers to wildlife movement. The Department has committed to wildlife movement studies



prior to the Tier 2 process. These studies will allow for biologists to establish a baseline and better assess wildlife movement through the proposed corridors. No change made.” Gene flow and normal gene flow was also mentioned 13 other times where it was also not included. Gene flow as an underlying purpose of the TMC to the Tucson Mountains and Saguaro NP is the only proven method to determine corridor success (BOR, 1983; FWS, 1984; BOR, 1985; BOR, 1990; and, BOR, 2020). Animal presence or use of a corridor is not a good measure of corridor success to animal populations (Seth et al., 2006; Strasburg, 2006; Corlatti et al., 2009; Lesbarreres and Fahrig, 2012; A. van der Gift et al., 2013; Gregory and Beier, 2014; Sawaya et al., 2014; and, Soanes et al., 2018).

For example, without information on genetic connectivity, an individual crossing a wildlife overpass leaves little to no trace on whether its attempted movement, occupation, and reproduction in new habitat was successful. A study by Seth et al. (2006) documented that methods such as radio/GPS telemetry are extremely limited and by themselves not capable of confirming success of gene flow at crossing structures. They found that observed migration rates of coyotes (*Canis latrans*) and bobcats (*Lynx rufus*) across the Ventura Freeway in southern California was a poor surrogate for evaluating gene flow. While the study did document mild levels of migration, populations on either side of the freeway were genetically differentiated and implied that individuals who crossed rarely reproduced (Seth et al., 2006). A corridor may also be occupied by a population that does not interact with populations in other or adjacent habitat blocks (e.g., the corridor acts as a sink for surplus individuals from those habitat blocks) (Gregory and Beier, 2014). Additionally, multiple researchers who study wildlife crossings stated that research has done little to verify their effectiveness, because use of crossings does not equate to their effectiveness for facilitating gene flow (Seth et al., 2006; Strasburg, 2006; Corlatti et al., 2009; Lesbarreres and Fahrig, 2012; A. van der Gift et al., 2013; Gregory and Beier, 2014; Sawaya et al., 2014; and, Soanes et al., 2017). The Tier 1 and Tier 2 NEPA analysis for the southern segment of the proposed I-11 corridor should address the importance of gene flow as a primary purpose of the TMC and gene flow as the appropriate measure of the effectiveness of crossings.

Not addressing comments on gene flow minimizes the role of the TMC and its identified function as the primary wildlife corridor of the Tucson Mountains which is accomplished through maintaining and promoting normal gene flow while avoiding genetic isolation of populations. The role of the BOR as the owner or administrator of the TMC, and thus the Section 4(f) official with jurisdiction, is to inform FHWA of the significance and function of the Section 4(f) property which is the TMC (23 CFR 774.11). In Section 4(f) regulations at 23 CFR 774.11 it states that “The determination of which lands so function or are so designated, and the significance of those lands, shall be made by the official(s) with jurisdiction over the Section 4(f) resource”. The importance of that requirement is to accurately and fully document the significance of the Section 4(f) property, which requires understanding and documenting its “function and value” (FHWA, 2012) (BOR, 1983; FWS, 1984; BOR, 1985; and, BOR, 2020). The “attributes” of a Section 4(f) property must be understood if FHWA is to properly evaluate it and compare it to other Section 4(f) properties for an Individual Section 4(f) Evaluation (FHWA,

2012). Part of the evaluation and process is “minimizing harm” and developing “comparable mitigation measures” while also “avoiding under-mitigating” another alternative (FHWA, 2012).

Given the impacts of highways on wildlife, this would result in the construction of a second linear barrier and the BOR believes that development of an I-11 corridor would contradict the initial purpose of the TMC and result in adverse effects on wildlife in the Tucson Mountains, potentially contributing to extirpation of species from Saguaro NP. Species within Saguaro NP that are particularly vulnerable to extirpation due to isolation include kit foxes, badgers, antelope jackrabbit, sidewinders, desert iguanas, and a number of smaller animals (Swann et al., 2018). If these small populations “blink out” due to stochastic processes, they may never be replaced if animals do not move back into the area and become established.

### ***National Park Service Comments***

The NPS has management responsibility for Saguaro National Park (NP) and the federally designated Saguaro Wilderness. As reflected in NPS’ comments on the Administrative FEIS, the Preferred Alternative – West Option has the potential to significantly impact multiple resources under NPS management. The Preferred Alternative - West Option will occur 0.3 miles from Saguaro NP and 0.6 miles from the federally designated Saguaro Wilderness, and has the potential to threaten the natural, cultural, and recreational experiences these areas provide the public. The NPS looks forward to the opportunity to gain a better understanding of the connectivity between the I-11 corridor and the separate Sonoran Corridor project proposed by FHWA. By analyzing the potential for increased traffic, utilities, and multimodal uses through the Affected Environment in the I-11 Tier 2 NEPA document, the NPS may better understand how that will impact NPS resources near Saguaro NP.

### **Preliminary Section 4(f) Evaluation**

The NPS believes that the proximity of the western Preferred Alternative to Saguaro NP (0.3 mi) and the federally designated Saguaro Wilderness (0.6 mi) would meet the Section 4(f) definition of a Constructive Use by causing substantial impairment to the core purposes for which these areas were protected by Congress. The NPS disagrees with FHWA’s classification of Saguaro NP as a *recreation area* and to not apply the *Ecological Intrusion* criterion to Saguaro NP and Saguaro Wilderness. Per 23 CFR 774.11(d), “the determination of which lands so function or are so designated, and the significance of those lands, shall be made by the official(s) with jurisdiction over the Section 4(f) resource.” As the official with jurisdiction, NPS believes the Section 4(f) evaluation does not identify all the current activities, features, and attributes that may be sensitive to proximal project impacts and which qualify Saguaro NP for protection under Section 4(f).

The ADOT does not address this concern, stating in the Constructive Use analysis that: *Saguaro National Park is managed as a public park and for natural resource preservation; it is not a wildlife or waterfowl refuge. For this reason, this criterion [Ecological Intrusion] does not apply to Saguaro National Park.* However, at a distance of 200 feet from the Tucson Mountain

Park Historic District which is partially within Saguaro NP, the Preferred Alternative – West Option could result in an adverse effect to historic properties. The summary paragraph for the National Register nomination form (provided to FHWA/ADOT on February 17, 2021) states that *“The creation of the [Tucson Mountain] park was seen as a way to preserve a large tract of undeveloped wilderness just outside the city.”* The Preferred Alternative – West Option (including interstate, rail, and utility corridor) could negatively impact and diminish historically significant attributes of the district, including the cultural and environmental context in which many of the historic sites and visitor use areas promote public appreciation and conservation of the distinctive natural landscape.

As outlined in 23 CFR 774.15, all reasonably foreseeable indirect impacts to visitor use and the cultural and natural resources that contribute to the site’s significance should be considered for both Saguaro NP and the Tucson Mountain Historic District in the Final Section 4(f) Evaluation. The NPS noted that FEIS Table 4-6 *Summary of Comments from Officials with Jurisdiction over Section 4(f) Properties* does not include recent correspondence from the Department regarding the administrative FEIS (February 10, 2021) and the Section 4(f) review (February 26, 2021). Please update the table to include all relevant 2021 correspondence regarding jurisdiction over Section 4(f) properties. Should this project advance to a Tier 2 phase, Saguaro NP looks forward to formally working with FHWA/ADOT to comprehensively analyze the impacts on resources within our jurisdiction which qualify for protections under Section 4(f) and the associated impacts to our diverse user groups.

### ***Fish and Wildlife Service Comments***

The FWS reviewed all previous drafts of the EIS, identified several concerns and provided thorough comments. They are part of the FHWA administrative record for the I-11 project. In several instances, specific FWS’s concerns were stated, and the FWHA’s response was “No response needed.” The FWS feels that those responses do not adequately address its concerns. The FWS requests that its concerns be reconsidered and adequately addressed in the FEIS.

Thank you for the opportunity to provide comments and your continued attention to important resources. If you have any questions related to the BOR specific comments, please contact Mr. Sean Heath at 623-773-6250 or via email [sheath@usbr.gov](mailto:sheath@usbr.gov). For questions regarding NPS comments, please contact Leah McGinnis, Superintendent (520-733-5101 or



[leah\\_mcginnis@nps.gov](mailto:leah_mcginnis@nps.gov)) or Jeff Conn, Chief of Science and Resource Management (520-286-7743 or [jeffery\\_conn@nps.gov](mailto:jeffery_conn@nps.gov)). To discuss FWS comments please contact Bob Lehman at 602-242-0210 or via email [robert\\_lehman@fws.gov](mailto:robert_lehman@fws.gov).

Sincerely,

**STEPHEN  
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Stephen G. Tryon, Director  
Office of Environmental Policy  
and Compliance

cc: [aryan.lirange@dot.gov](mailto:aryan.lirange@dot.gov)  
[I11Study@azdot.gov](mailto:I11Study@azdot.gov)  
[Janet\\_Whitlock@ios.doi.gov](mailto:Janet_Whitlock@ios.doi.gov)

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# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
2800 Cottage Way, Rm E-1712  
Sacramento, California, 95825

In Reply Refer To:  
19-0143

*Filed electronically*

February 10, 2021

Ms. Karla Petty  
Division Administrator  
Federal Highway Administration  
4000 N. Central Ave., Suite 1500  
Phoenix, AZ 85012

Subject: Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona, dated January 2021

Dear Ms. Petty:

The Department of the Interior (Department) has reviewed the Federal Highway Administration (FHWA) and the Arizona Department of Transportation's (ADOT) Administrative Final Tier 1 Environmental Impact Statement (AFEIS), dated January, 2021, and provides the following comments on behalf of its bureaus: the U.S. Bureau of Reclamation (Reclamation), the U.S. Fish and Wildlife Service (FWS), the U.S. Bureau of Land Management (BLM), and the National Park Service (NPS). The Department has not included comments on the preliminary Section 4(f) evaluation (Chapter 4 of the AFEIS) in this review as FHWA indicated that Cooperating Agencies shall have 45 days to comment on the preliminary Section 4(f) evaluation and 30 days for the remaining chapters. The Department will provide comments on the Section 4(f) evaluation and Chapter 4 under a separate cover letter and matrix within the 45-day timeframe.

## General Comments

### Correction of the Record

We would like to correct the record during the Special Study Session held by ADOT and the Tucson Mayor and City Council on June 18, 2019. During the meeting, the ADOT Representative was asked which agencies support the Recommended Alternative through the Avra Valley. The ADOT representative responded that there is consensus from, "...basically every agency within the Department of the Interior". (see minute 3:01; <https://www.tucsonaz.gov/tv12/tucson-mayor-council-meeting-study-session-june-18-2019>). DOI Bureaus discussed this comment at an in-person meeting with ADOT and FHWA on August 14, 2019, and were assured that ADOT staff would follow up with the City of Tucson to correct the record. The Bureaus have not received confirmation of the correction and seek confirmation that ADOT and/or FHWA provided the correct information to the Mayor and the

City Council and that ADOT and/or FHWA representatives did not make similar mischaracterizations to other municipalities, groups, or individuals. As Cooperating Agencies, the Bureaus prefer to speak on our own behalf for this project.

#### *Level of Analysis West Option vs East Option*

The Department notices that the AFEIS frequently offers greater analysis of the Preferred Alternative – West Option as the Recommended Alternative but does not present similar information for the Preferred Alternative - East Option, and at times, little to no information for comparison is provided. For example, capital cost information is provided for the East Option on page 4-94, but no information for comparison is provided for the West Option even though its estimated cost is higher. Economic benefits in the Sahuarita to Marana segment are only provided for the West Option, but none are given for the East Option (e.g. p. 3.6-4). While detailed mitigation is provided for the Tucson Mitigation Corridor (TMC), a Section 4(f) property along the West Option but not for any of the Section 4(f) properties on the East Option. Additionally, an attempt was made to pursue a Programmatic Net Benefit for the TMC but not for the David G. Herrera and Ramon Quiroz Park which is located on the East Option. As FHWA moves forward to study both alternatives in the Tier 2 study, both NPS and Reclamation look forward to collaborating to ensure uniform and balanced analyses is presented so that the public and decision makers understand the economic benefits and environmental cost of all alternatives.

### **Bureau Specific Comments**

#### *Bureau of Land Management*

The BLM Hassayampa Field Office prefers the Orange Alternative analyzed in the DEIS in the Northern Section of the analysis area because it avoids the Vulture Mine Recreation Management Zone (VMRMZ), an approximately 70,000-acre BLM-administered area. While the Preferred Alternative uses a BLM-identified multi-use corridor, it also bisects the VMRMZ and an identified racecourse for off-highway vehicles within it. Maintaining access and wildlife connectivity to both sides of the VMRMZ would require significant mitigation, and while the AFEIS makes mitigation commitments for the racecourse, the BLM prefers total avoidance of the VMRMZ. The Orange Alternative, specifically Segment S, provides similar utility as the Recommended Alternative while avoiding these impacts to recreation. BLM has noted this preference in past comments throughout the project, most recently on the Draft EIS.

#### *Bureau of Reclamation*

Reclamation continues to be concerned about the potential impact of noise on the TMC from the West Option alternative. The TMC is a highly sensitive and critical area that functions as the primary wildlife movement corridor for the Tucson Mountains and Saguaro National Park and Tucson Mountain Park which are found within. Research such as studies by McClure et al. (2013) reported that noise from roads is a major driver of effects on populations of animals and can lead to areas that are considered dead zones. Such dead zones are areas that species and populations avoid as a result of disturbances such as traffic noise, causing them to abandon and avoid those areas while devaluing and rendering habitat and its original purpose unsuitable. Reclamation wildlife biologists and partner agencies that assist in oversight of the TMC foresee a

proposed I-11 as decreasing the level of use of the TMC and its crossing structures by wildlife affecting the initial purpose of its acquisition.

Reclamation identified in prior comments the location of Central Arizona Project (CAP) canal wildlife bridges and concrete overchutes near Segment U within the Hassayampa Plain and Tonopah Desert study area. Reclamation staff have monitored a diverse series of structures across the CAP canal for 3 years and have documented results showing that mule deer use individual structures as high as 411 times a month. Monitoring has also shown that human activity and nearby roads devalue the suitability of the bridges and overchutes resulting in reduced and recurring use as low as  $\leq 10$  crossings a month. We anticipate that we will publish these results in a report in 2021 or 2022. Based on this information, we anticipate that a new highway will result in reduced use of the existing overchutes and bridges. Therefore, Reclamation would require mitigation for the affected bridges and overchutes if the proposed action is constructed.

### **Fish and Wildlife Service**

#### **Tumamoc Globeberry**

The Tumamoc globeberry (*Tumamoca macdougallii*) was listed as endangered in 1986 and then delisted in 1993 after the acquisition and protection of the Tumamoc Preserves by Reclamation and the discovery of additional populations in the United States and Mexico. However, monitoring in recent years indicates serious declines are occurring in populations in Pima County. FWS is concerned about potential effects of the Sahuarita to Marana west option on lands set aside in Avra Valley to preserve populations of this species. FHWA and ADOT planners are aware this species occurs in Pima County but have only briefly mentioned it. There is no clear commitment in the AFEIS that surveys will occur, and no specific mitigation/conservation measures are proposed. FWS would appreciate additional details regarding ADOT/FHWA's intentions with regard to the globeberry in the final EIS (FEIS).

#### **Sonoran Desert Tortoise**

The Sonoran desert tortoise was removed from the candidate species list in 2015 and was returned to the candidate list in 2020 due to an August 3, 2020, court-approved settlement agreement (85 FR 73164). The existence and implementation of the 2015 Sonoran desert tortoise Candidate Conservation Agreement was a factor in not listing it as threatened or endangered. As a signatory to the 2015 Sonoran desert tortoise CCA, we trust that ADOT will comply with its conservation commitments.

#### **Pima Pineapple Cactus**

The proposed action will almost certainly adversely affect the Pima Pineapple Cactus (PPC) at levels well above any other listed or candidate species in the study area. Second, mitigation and compensation for PPC losses will be possible only if losses do not involve a substantial proportion of the remaining PPC population, which is probably under 8,000 individuals, and to the extent that PPC conservation bank credits or mitigation lands are available for purchase. Third, ADOT and FHWA ultimately may need to choose among other corridor alternatives where PPC numbers are lower if they cannot effectively minimize, reduce, or eliminate adverse effects within the Preferred Alternative. Finally, we remind ADOT and FHWA, as we have in the past, that the goal of the Tier 1/Tier 2 process, in the case of the PPC, is to avoid jeopardizing the species when we evaluate ADOT/FHWA's project under Section 7 of the Endangered

Species Act. We strongly recommend PPC surveys in all corridor options and development of a preliminary mitigation/conservation plan at the earliest possible date. We also remind FHWA and ADOT that the west option of the Sahuarita to Marana segment may have more PPC and PPC habitat than any build corridor option considered in the draft and administrative final EISs.

### **National Park Service**

#### **General Comments**

As the federal agency with management responsibility for Saguaro National Park (Saguaro NP) and the federally-designated Saguaro National Wilderness, the NPS is mandated to protect these resources adjacent to the proposed project. The NPS provided comments during review of the Administrative Draft EIS in 2018, and the Draft EIS (DEIS) dated March, 2019, and continues to review relevant project materials as a cooperating agency under NEPA. The following comments, including attached matrix, are not only intended to supplement and identify outstanding concerns from NPS' previously submitted review of the study, they also identify technical edits and consider further analyses that should be incorporated into the FEIS or initiation of the Tier 2 study.

NPS appreciates ADOT/FHWA's decision to carry the Preferred Alternative – East Option forward for further analysis in Tier 2. As reflected in NPS' comments on the DEIS, the former Recommended Alternative (now Preferred Alternative – West Option) has the potential to significantly impact multiple resources, requiring further mitigations than the measures proposed in the AFEIS. The proposed Preferred Alternative - West Option will occur .3 miles from Saguaro NP and .6 miles from the federally-designated Saguaro Wilderness, and has the potential to threaten the natural, cultural, and recreational experiences these areas provide the public. Additionally, the TMC is essential for maintaining biodiversity within the Park and continuing local biological mitigation efforts in Pima County.

#### **Specific Comments**

##### **Air Quality**

Because the I-11 NEPA review was conducted under the 1978 CEQ NEPA regulations, NPS believes the cumulative air quality effects from the FHWA Tier 1 Sonoran Corridor route should be addressed in the I-11 Final EIS or the Tier 2 study. While the AFEIS explains why the 3.9 mile connector near Marana is included as part of the I-11 Preferred Alternative – West Option, the proposed Sonoran Corridor, which is being analyzed in a separate EIS, is a reasonably foreseeable multimodal transportation facility currently being planned that would affect air quality, including visibility, also affected by the I-11 proposal. As we noted in our comments on the Sonoran Corridor Tier 1 DEIS, we would appreciate the chance to meet with FHWA and ADOT to get a better understanding of the connectivity between these two projects, and the potential for increased traffic, utilities, and multimodal uses if both projects are built.

Consistent with the 2020 CEQ NEPA regulations, we also believe the Sonoran Corridor proposal should be identified as a reasonably foreseeable future project in the affected environment of the Tier 2 I-11 NEPA review, and the resource trends it will create should be described and considered when assessing the effects of the I-11 project. The Tier 2 analysis commitments should also include a quantitative analysis of the air quality impacts that could result from

induced growth from the Preferred Alternative – West Option on Saguaro NP. While the AFEIS notes that site-specific mitigation measures will be identified for sensitive viewpoints in the Tier 2 analysis, NPS notes that measures for the Preferred Alternative – West Option will be particularly important since there is currently minimal development on this side of the park. Potential mitigation measures should also take into account the fact that viewpoints are generally located at a higher elevation than the proposed build corridor.

### Historic Properties and Structures

As of 2020, the 28,708-acre Tucson Mountain Historic District was determined eligible for listing on the National Register of Historic Places by the Arizona State Historic Preservation Office (SHPO). This district is directly adjacent to the western alignment of I-11, and roughly encompasses the original footprint of Tucson Mountain Park, now managed by the National Park Service and Pima County. The Historic District spans the Tucson Mountains, including sections of Saguaro National Park. At the closest point, the western Preferred Alternative is 200 feet from the Historic District, and, as stated in the 2020 Determination of Eligibility form, “[t]he creation of the park was seen as a way to preserve a large tract of undeveloped wilderness just outside the city” and to designate a “county wildlife refuge.”

NPS recognizes that the FHWA *Class I Overview for Tier 1 Planning for Interstate 11: Historic Districts and Buildings Supplement* (November, 2020) was provided to address deficiencies and identify historic properties in the 2019 Tier 1 DEIS and draft 4(f) Evaluation. NPS appreciates this supplementary information, and would like to work with FHWA to address the Tucson Mountain Historic District and better identify its geospatial proximity to the Preferred Alternative – West Option. The NPS has the opportunity to share the description of this Historic District as it relates to the proposed alternatives, and, given our special expertise related to this resource, would like to work with FHWA/ADOT to determine how impact analysis and mitigations for consideration may be further addressed in the Tier 2 study.

### Wildlife

The NPS has outstanding concerns about loss of species in Saguaro National Park, as expressed in NPS comments to the DEIS. NPS is responsible for wildlife within its jurisdiction and the NPS Organic Act specifically protects wildlife in national parks, as NPS addressed in the DEIS in 2019. Although the NPS is listed as a Cooperating Agency, the AFEIS does not acknowledge the value of Saguaro National Park as a nationally-significant biological reserve or the many other NPS requests that FHWA/ADOT involve NPS biologists in design and review of Tier 2 studies that evaluate the relative impacts on biological resources of the two options in the Preferred Alternative in Pima County. We have been verbally assured that we would be invited to participate in these studies by ADOT but we would appreciate it if FHWA/ADO explicitly acknowledge this in the FEIS and Record of Decision.

### Natural Sounds

As noted in past discussions and NPS comments on the Tier 1 DEIS, NPS believes current noise level increase predictions and other FHWA criteria (23 CFR 772) are not adequate for assessment of impacts on ambient sound levels in the Saguaro NP Tucson Mountain District. Although the AFEIS indicates the Preferred Alternative – West Option would not produce noise level increases in excess of applicable ADOT/FHWA noise abatement threshold, because there are no low noise, long-term baseline measurements in the vicinity, it is unknown if increases in noise levels from the I-11 project would exceed the applicable abatement threshold. We



appreciate ADOT/FHWA's willingness to consider other criteria and to incorporate long-term acoustic ambient measurements from NPS into the Tier 2 analysis. The NPS is currently gathering new low noise Type 1 Sound Level Meter (SLM) data in the Saguaro NP Tucson Mountain District, and we respectfully request that ADOT/FHWA incorporate these additional acoustic criteria and new SLM data into the forthcoming Tier 2 analysis, including noise abatement determinations.

### Wilderness

The effects described above to air quality, wildlife, and natural sounds, as well as effects described in the attached matrix, would degrade the wilderness character of the Saguaro Wilderness Area located within 0.6 miles of the Preferred Alternative – West Option. Specifically, the effects of this proposal, including sights and sounds, would degrade the natural and undeveloped character of wilderness, opportunities for primitive and unconfined recreation, and opportunities for solitude. Considering the combination of the Tucson Mountain Park Historic District, the Saguaro Wilderness Area (1976), and Congress' stated intent to protect opportunities for solitude within the wilderness areas of Saguaro NP (Public Law 103-364), the NPS believes that the FEIS and Tier 2 study should acknowledge that Saguaro NP and its designated wilderness meet the sensitive land use criteria of 23 CFR 774.15. The NPS would be happy to share information about Saguaro NP wilderness character as it relates to the proposed alternatives, and given our special expertise regarding this resource, looks forward to working with FHWA/ADOT to ensure the effects are appropriately analyzed in the Tier 2 analysis.

In addition to the comments above, the Bureaus have provided detailed comments in the Attachments to this letter as follows:

- **Attachment 1** – *Comments from the BLM on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*
- **Attachment 2** – *Comments from Reclamation on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*
- **Attachment 3** – *Comments from FWS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*
- **Attachment 4** – *Comments from NPS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*

Thank you for the opportunity to provide comments on this AFEIS. The Department and bureaus are available to meet to clarify any of our comments or recommendations and to further assist the FHWA and ADOT with the identification of appropriate measures for the benefit of wildlife. For questions regarding specific comments please contact: Mr. Lane Cowger with BLM at 602-417-9612 or via email at [lcowger@blm.gov](mailto:lcowger@blm.gov); Mr. Bob Lehman with FWS at 602-242-0210 or via email at [Robert\\_lehman@fws.gov](mailto:Robert_lehman@fws.gov); Mr. Jeff Conn with NPS at 623-773-6250 or via email at [jeffery\\_conn@nps.gov](mailto:jeffery_conn@nps.gov); Mr. Sean Heath with Reclamation at 623-773-6250 or via email at



[sheath@usbr.gov](mailto:sheath@usbr.gov). For all other comments or questions please contact me at 415-420-0524 or via email at [janet\\_whitlock@ios.doi.gov](mailto:janet_whitlock@ios.doi.gov).

Sincerely,

JANET  
WHITLOCK



Digitally signed by  
JANET WHITLOCK  
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Janet L. Whitlock  
Regional Environmental Officer

Attachments

Cc:  
Shawn Alam, DOI  
Jeff Conn, NPS  
Sean Heath, Reclamation  
Bob Lehman, FWS

**Attachment 1 – Comments from the BLM on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.**

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
3	Appendix H				Cowger	BLM Hassayampa Field Office appreciates the attention given to comments BLM provided on the Draft EIS and addressed in Appendix H. Incorporation of these comments is noted throughout the FEIS document and improves discussion of BLM lands, resources, authority, and designations.	
4	3.4.6.2	3.4-5		6-7	Cowger	The mitigation commitment to MM-Recreation-1 to maintain connectivity for the Vulture Mine Race Course, which would be crossed by the preferred alternative is noted and appreciated.	
5	3.14.6				Cowger	Tier 2 and Mitigation commitments for wildlife resources including Sonoran desert tortoise and BLM special status species is noted.	
6		4-49		4 & 11	Cowger	No need to reference the Agua Fria National Monument RMP in plans. "Bradshaw-Harquahala Resource Management Plan/Record of Decision (RMP)" is sufficient here and anywhere else in the document. The Agua Fria NM is not crossed or directly impacted by any of the alternatives and its RMP, while a companion document to the Bradshaw-Harquahala RMP, is not applicable to this project.	
7	General				Cowger	The BLM Hassayampa FO prefers the Orange Alternative analyzed in the DEIS in the Northern Section of the analysis area because it avoids the Vulture Mine Recreation Management Zone (VMRMZ), an approximately 70,000-acre BLM-administered area. While the Preferred Alternative uses a BLM-identified multi-use corridor, it also bisects the VMRMZ and an identified racecourse for off-highway vehicles within it. Maintaining access, and wildlife connectivity, to both sides of the VMRMZ would require significant mitigation, and while the FEIS makes mitigation commitments for the racecourse, the BLM prefers total avoidance of the VMRMZ. The Orange Alternative, specifically Segment S, provides similar utility as the Recommended Alternative while avoiding these impacts to recreation. This preference has been noted in past comments throughout the project, most recently on the Draft EIS.	

**Attachment 2 - Comments from Reclamation on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.**

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
1	ES 6.2	ES-7	Table ES-2		Reclamation	<p>The section of the table addressing Access to Planned Growth Area seems to be inconsistent. For the West Option, Ryan airfield is already located along existing AZ State Route 86, which is an existing and significant travel corridor. Whereas information within the Public Draft EIS clearly identifies the Orange/Existing I-10 alignment best serves continued population and employment growth for Pima County and the southern segment. Therefore, Reclamation requests the text below for the East Option in table ES-2 and elsewhere be edited to be consistent with descriptions in the table and from results provided in the previous Public Draft EIS.</p> <p><u><b>Best serves</b></u> <del>Responds to</del> continued population and employment growth centered along existing I-10 and I-19 (Sahuarita, Tucson, Marana)</p>	
2	Chapter 3	3-1		7-10	Reclamation	Reclamation recommends incorporating a reference table to identify resource impacts with changes within the Final EIS bolded. Providing such information will prevent the need for the public to have to reference both documents.	
3	3.14.6.2	3.14-22		38-40	Reclamation	While research has shown a broad range of species can and do use wildlife overpasses, research has done little to verify their effectiveness, because use does not equate to its effectiveness (Seth et al. 2006; Corlatti et al. 2009; Lesbarreres and Fahrig 2012; A. van der Gift et al. 2013, Gregory and Beier 2014). A study by Seth et al. (2006) found that observed migration rates of coyotes ( <i>Canis latrans</i> ) and bobcats ( <i>Lynx rufus</i> ) across the Ventura Freeway in southern California was a poor surrogate for evaluating gene flow. While the study did document mild levels of migration, populations on either side of the freeway were genetically differentiated and implied that individuals who crossed rarely reproduced (Seth et al. 2006). This uncertainty limits the ability of how best to mitigate impacts from roads and which impacts can be successfully mitigated (Soanes et al. 2017). We ask that the EIS acknowledges this uncertainty.	
4	3.3	3.3-4		3-19	Reclamation	Line 10 states that agencies such as Reclamation requested the Tier 1 EIS include a comprehensive list of state, local, and federal plans. Reclamation's original request submitted in July 2019 was to "Please describe all existing management plans (e.g., RMP, FMP, trail mgmt. plan, etc.) and evaluate consistency with those plans (40 CFR §1502.16(c))."	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<p>A list is provided in the EIS but the evaluation for consistency would be completed during Tier II analysis. Both the 1978 and 2020 CEQ regulations state that the environmental consequences section of an EIS "shall" include a discussion of potential conflicts with existing land use plans, policies, and controls. An Avra Valley alternative is not consistent with Reclamation's Tucson Mitigation Corridor (TMC) Cooperative Agreement and Master Management Plan. The proposed action also appears to be inconsistent with the City of Tucson's Habitat Conservation Plan and the 21,596 acres established and planned throughout Avra Valley and with Pima County's Sonoran Desert Conservation Plan for the multiple natural resource mitigation properties they also have established in the valley.</p> <p>Consistency with existing plans is important information that should be available to the public and the decisionmaker prior to selecting a preferred route.</p>	
5	3.3.2.2	3.3-5		15-20	Reclamation	<p>Within the EIS it states the following: "Pima County, DOI, and the Coalition for Sonoran Desert Protection requested that Pima County's Conservation Lands System be considered an affected resource."</p> <p>Their location and information was provided to FHWA and ADOT during the draft phase. Have these lands been evaluated to determine whether they qualify as Section 4(f)? Their original purpose and presence likely fall under the Section 4(f) designation of a refuge which should be reviewed and considered in the analysis. Please include this analysis.</p>	
6	3.3	3.3-8	Table 3.3-7		Reclamation	<p>The table identifies that 12-acres of Reclamation land is found within a 2,000-foot wide corridor and is incorrect. A 2,000-foot wide corridor would encompass approximately 488-acres of Reclamation land and not 12. In the prior Public Draft, it was identified that the 2,000-foot corridor would encompass or use 453-acres. Whereas a 400-foot wide corridor would encompass or use approximately 96-acres. Please correct.</p>	
7	3.6.4	3.6-2		33-35	Reclamation	<p>The EIS states the following. "The Project Team anticipates the economic impacts for the Recommended Alternative would be similar to the economic impacts for the Purple Alternative and Green Alternative presented in Section 3.6.4 (Environmental Consequences) of the Draft Tier 1 EIS."</p> <p>Further clarification from FHWA and ADOT is recommended to explain how the economic analysis was conducted and how impacts would be similar when the Public and Supplemental Draft identify that most key economic centers and planned growth areas are located along the Orange (Segment B) alternative.</p>	
8	Appendix E2	10	Table 3-4		Reclamation	<p>The table depicting 2040 travel times in minutes identifies that travel time from Nogales to Casa Grande would be 123 minutes for the now identified West Option verse 133 minutes for the existing East Option (Tucson). A difference of only 10 minutes does not appear to be an adequate improvement in travel time to justify the construction of an entirely new interstate versus improving the existing I-10 (East Option).</p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<p>The West Option would entirely bisect the Tucson Mitigation Corridor which is a property protected under 663(d) of the Fish and Wildlife Coordination Act and also classified as a Section 4(f) property within this EIS.</p> <p>The identified metric in Table 1-1 on page 1-1 states:  <u>Reduces travel time for long distance traffic (2040 traveltime from Nogales to Wickenburg in minutes).</u></p> <p>Reclamation has not found how that metric is applied to different shorter segments and in conjunction with capital costs as an evaluation factor. The west option improves travel time by only 10 minutes, but no information or analysis was done to determine if it is a cost effective selection when evaluated side by side. Is a 10 minute improvement in travel time cost effective when the capital cost for segment C (Purple) is \$2,371,714,000.00, \$2,082,061,000.00 for D (Green), and \$585,899,000.00 for B (Orange)? That is a difference of \$1,785,815,000 more for constructing Segment C and \$1,496,162,000.00 more for Segment D over Segment B.</p>	
9	3.7.5.1	3.7-2		7-9	Reclamation	<p>As a result of criticism received from multiple subject matter experts on the adequacy of data used to assess impacts to cultural resources (Page 3.7-2, Line 7-9), it is recommended a disclaimer be incorporated to inform readers that results of the analysis are based off a disproportionate level of surveys and effort between the East (Orange) and West (Purple and Green) Option. Additional surveys and analysis are needed on the West side before a conclusion can be made about the abundance and impacts to cultural resources.</p>	
10	3.7.5.4	3.7-10		8-10	Reclamation	<p>Due to the disproportionate level of surveys between the East and West Option it is recommended the following language be modified.</p> <p><b><u>Based on existing but incomplete information,</u></b> the Final Tier 1 EIS impact assessment concluded that compared to the Recommended Alternative and the Preferred Alternative with west option in Pima County, the Preferred Alternative with east option in Pima County is likely to:</p>	
11	3.8.2	3.8-3		7-11	Reclamation	<p>Please add the TMC to this statement. There is also a high level of concern about the impact of noise on the Tucson Mitigation Corridor (TMC). The TMC is a highly sensitive and critical area that functions as the primary wildlife movement corridor for the Tucson Mountains and Saguaro National Park and Tucson Mountain Park which are found within. Research such as studies by McClure et al. (2013) reported that noise from roads is a major driver of effects on populations of animals and can lead to areas that are considered dead zones. Such dead zones are areas that species and populations avoid as a result of disturbances such as traffic noise causing them to abandon and avoid those areas while devaluing and rendering habitat and its original purpose unsuitable. Reclamation wildlife biologists and partner agencies that assist in oversight of the TMC foresee a proposed I-11 decreasing the level of</p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<p>utilization of the TMC, its crossing structures, and affecting the initial purpose of its acquisition. As stated in prior Draft EIS comments and in our January 2, 2020 email letter titled "Additional Reclamation Comments for an Individual 4(f) evaluation for the TMC", FHWA and ADOT face a significant challenge to not defeat the initial purpose of the TMCs acquisition as identified in 16 USC 663(d) (See Below). An anticipated violation could prohibit FHWA and ADOT from selecting an Avra Valley alternative.</p> <p>16 USC 663(d) states- (d)USE OF ACQUIRED PROPERTIES Properties acquired for the purposes of this section shall continue to be used for such purposes, and shall not become the subject of exchange or other transactions if such exchange or other transaction <u>would defeat the initial purpose of their acquisition.</u></p>	
12	3.8	3.8-4		10-14	Reclamation	Would noise levels exceed the FHWA NAC for the Tucson Mitigation Corridor and its functional purpose which Reclamation has previous stated is a property of unique and special significance under Section 4(f)? FHWA and ADOT have proposed highway overpasses for wildlife which would fall within a zone that produces the highest level of traffic noise.	
13	3.8	3.8-5	Table 3.8-3		Reclamation	Reclamation recommends incorporating the TMC within Table 3.8-3 because of the critical role it plays in supporting other Section 4(f) properties and the potential to affect the purpose of the TMC.	
14	3.8.3	3.8-6		11-29	Reclamation	What are the no build noise levels in areas where there are little or no transportation facilities? What are the "existing transportation facilities" used for the noise analysis? Only I-10, or were secondary roads included also?	
15	3.10.2	3.10-2		12-16	Reclamation	<p>The Administrative Draft States the following: <u>Agency and public feedback on air quality focused on concerns with impacts, such as visibility to Saguaro National Park, impacts to climate change and greenhouse gases, concerns with the project being in compliance with NAAQS, and a general concern for the project increasing air pollution in the Analysis Area. These air quality concerns did not result in changes to this Tier 1 analysis but would be addressed during the Tier 2 analysis.</u></p> <p>The analysis and evaluation of these comments should be included in the Tier 1 EIS or the Tier 1 EIS should discuss why that is not possible at this time.</p>	
16	3.14.1.1	3.14-2		1-3		<p>Reclamation recommends the following edits.</p> <p>The Purple and Green Alternatives <u>would</u> may generate an increased threat of noxious and invasive species spreading and impacting native species along new alignments in rural, undeveloped areas.</p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						If purple and green alternative are planned to be new developed corridors then they <u>would</u> generate an increased threat of noxious and invasive species.	
17	3.14.4.2	3.14-9		12-14	Reclamation	<p>Reclamation recommends an edit to the statement below to replace <u>could</u> with <u>would</u>.</p> <p>There is an abundance of scientific studies that document how roadways in proximity to valuable wildlife habitat and conservation lands will lead to some level of impact. A proposed I-11 will lead to some level of isolation, an increase in noise, light, and air pollution that will degrade nearby habitat quality. Those are roadway associated impacts documented elsewhere within this EIS such as page 3.14-8 Line 22-24 where FHWA and ADOT state how they could impact species covered under the ESA. The document also states how it will increase accessibility which will also lead to indirect impacts including development on page 3.17-2 Line 17-19.</p> <p>The City of Tucson Habitat Conservation Plan (City of Tucson 2018), as well as Pima County's Sonoran Desert Conservation Plan (Pima County 2016b), and Pima County's Conservation Lands System, <del>could</del> <u>would</u> be affected by the Recommended Alternative.</p>	
18	3.14.4.3	3.14-13		7-11	Reclamation	<p>The Administrative Draft states on Line 7-11 the recommended alternative "would create new infrastructure and therefore <u>add impediments to wildlife movement</u> in the following wildlife connectivity features" which include the Tucson Mitigation Corridor (TMC). Impediments to wildlife movement may risk defeating the initial purpose of the property. As stated above, our January 2, 2020 email letter provides further clarification on this.</p> <p>"lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)]."</p>	
19	3.14.5.2	3.14-18		33-36	Reclamation	<p>Reclamation requests the following edit below.</p> <p>Dispersal of invasive and noxious weeds into Semidesert Grassland following construction of the Preferred Alternative <del>may</del> <u>would</u> negatively impact protected species such as Pima pineapple cactus and Sonoran desert tortoise due to competition and altered fire regimes (USFWS 2015a).</p>	
20	3.14.6.2	3.14-24		20-23	Reclamation	<p>Reclamation requests the following edit below.</p> <p><u>Avoid or</u> minimize construction footprint through quality Pima pineapple cactus habitat; survey suitable habitat 1 year prior to the Tier 2 process to</p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						inform design; implement long-term control of invasive and noxious weeds; and negotiate compensatory mitigation with USFWS, as needed.	
21	3.14.6.2	3.14-24		33-36		Reclamation requests the following edits below.  If the Preferred Alternative with west option is chosen during Tier 2 studies <u>will be developed to</u> avoid, minimize, or mitigate impacts to the Tucson Mitigation Corridor <u>and to determine compliance with 16 U.S.C., section 663(d).</u>	
22	3.14.6.1	3.14-26		20-25	Reclamation	Reclamation requests the following edits below.  Avoid, or minimize, <u>and mitigate</u> impacts to the White Tank-Belmont Hieroglyphics Linkage and Wickenburg-Hassayampa Linkage <u>and primary and secondary wildlife crossing structures on Reclamation's CAP canal.</u>  Reclamation identified in prior comments the location of CAP canal wildlife bridges and concrete overchutes near Segment U within the Hassayampa Plain and Tonopah Desert study area. Reclamation staff have monitored a diverse series of structures across the CAP canal for 3 years and have documented results showing mule deer use individual structures as high as 411 times a month. Monitoring has also shown that human activity and nearby roads devalue their suitability resulting in reduced and recurring use as low as only ≤10 crossings a month. It is anticipated that these results will be published in a 2021 or 2022 Reclamation report. Mitigation for the affected bridges and overchutes would be required if the proposed action was constructed.	
23	3.17.1.1	3.17-1		35-37	Reclamation	The lines contradict each other by stating access "could" induce growth but then state in the next line that interchanges are "assumed" to have project induced growth.	
24	3.17.4.2	3.17-7		26-28	Reclamation	The following statement is within the Administrative Draft.  <u>There is mitigation in place along the CAP canal to improve wildlife movement, but the construction of the Recommended Alternative would cumulatively add to the impacts to wildlife movement in this area.</u>  Has FHWA and ADOT determined that mitigation and minimization can be adequately developed and implemented for an already impacted and mitigated resource? If so, include how this determination was made.  As identified within the TMC Cooperative Agreement and the Fish and Wildlife Coordination Act, the authority under which it was established, "lands described herein for fish and wildlife purposes shall not become	



#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)]."	
25	3.17.5.2	3.17-10		12-14	Reclamation	<p>The following statement is within the Administrative Draft.</p> <p><u><i>With the west option in Pima County, impacts to wildlife connectivity would be same as the Recommended Alternative, as urbanization and the CAP canal have already impacted wildlife movement in the past.</i></u></p> <p>On page 3.17-7, the AFEIS states the construction of the recommended alternative in Avra Valley would cumulatively add to the impacts to wildlife movement in the area.</p> <p>Reclamation disagrees with the identified statement. Please include an explanation of how the impacts would be the same or remain the same since new transportation corridors result in additional and more severe indirect effects such as residential and commercial development, and increased access to the area. Very little development followed the construction of the CAP canal in Avra Valley, where the Administrative Draft has stated the Recommended alternative would cumulatively add to impacts to wildlife movement on page 3.17-7 line 27-28. It is also stated on page 3.17-2 line 17-19 that interchanges and areas with increased accessibility would experience changes in use as well as an increased rate of development.</p> <p>The resulting impact of an I-11 alternative within Avra Valley will be more severe than the construction of the CAP canal and would result in additional barriers. Additionally, it will be difficult to develop and implement effective minimization and mitigation measures without impairing prior Reclamation mitigation measures such as the Tucson Mitigation Corridor.</p>	
26	6.4.2.1	6-20		38-40	Reclamation	<p>Reclamation requests the following edit.</p> <p>The Tucson Mitigation Corridor plays a critical role in <del>maintaining wildlife connectivity</del> <b><u><i>maintaining and promoting normal gene flow</i></u></b> between the isolated habitat block along the Tucson Mountains (SNP and TMP), Ironwood Forest National Monument, and Roskrige Mountains.</p>	

### ***Attachment 3 - Comments from FWS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.***

As a cooperating agency on the I-11 project, the U.S. Fish and Wildlife Service (FWS), Arizona Ecological Services Office has reviewed and commented on two drafts of the I-11 Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation. We have now briefly reviewed the I-11 Administrative Final Tier 1 EIS (AFEIS), distributed on January 11, 2021. Our purpose in the current review is to re-emphasize key issues we identified in earlier comment periods and to address the responses of the Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA) to our past concerns. We also raise several new concerns regarding the Preferred Alternative—the build corridor alternative identified in the AFEIS that is likely to advance to Tier 2 for additional analysis and study.

Note that we have not included comments on the preliminary Section 4(f) evaluation (Chapter 4 of the AFEIS) in this review. ADOT and FHWA have given reviewers 45 days to comment on their preliminary 4(f) evaluation, and 30 days for the remaining chapters. Thus, we will provide comments on 4(f) issues under separate cover in the coming days, and here confine our comments primarily to Chapter 3.14 of the AFEIS (Biological Resources).

#### **Previous Reviews**

##### The ADEIS

On August 17, 2018, we submitted comments on the July 2018 Administrative Draft Tier 1 EIS (ADEIS) and Preliminary Section 4(f) Evaluation directly to FHWA and ADOT in the form of a 13-page, itemized and numbered comments matrix. We addressed the adequacy of six key factors ADOT identified for comment by reviewers in the EIS Reviewer's Guide (including the adequacy of the effects analysis and mitigation measures), provided updates of habitat descriptions that appeared in the ADEIS, and updated references and citations for some species. We also identified issues and species that needed more attention and analysis, including:

- A proposal to align I-11 through the undeveloped Avra Valley and Tucson Mitigation Corridor (TMC) west of Tucson (Option D of the Recommended Alternative). The TMC is a wildlife mitigation property established in 1990 to provide for wildlife movements across the Central Arizona Project (CAP) aqueduct. In the ADEIS, we expressed concerns about the conflict between the proposed I-11 alignment, the TMC's stated purpose, and the provisions of the Fish and Wildlife Coordination Act and Master Management Plan under which the TMC was established. However, the TMC is a Section 4(f) issue, and as we pointed out above, we will comment on the Section 4(f) preliminary evaluation in a separate letter.
- Alignment of all three build corridor alternatives considered in the ADEIS, including the Recommended Alternative, through areas of Pima County supporting high densities of the endangered Pima pineapple cactus (*Coryphantha scheeri* var. *robustispina*) (PPC).
- In Maricopa County, a proposed alignment requiring a new bridge over the Gila River west of Phoenix, rather than an alignment that takes advantage of an existing bridge, on

State Route (SR) 85, seven miles downstream of the proposed crossing. The proposed crossing would involve work in sensitive wetland habitats that support the endangered Yuma Ridgway's rail (*Rallus obsoletus yumanensis*), and possibly the endangered southwestern willow flycatcher (*Empidonax traillii extimus*), threatened yellow-billed cuckoo (*Coccyzus americanus*), and protected bald eagle (*Haliaeetus leucocephalus*).

- A potential problem with the tiered approach in the case of I-11—the risk of advancing a build corridor alternative into Tier 2 via a Record Of Decision without adequate data—in particular field data—to assess adverse effects among alternatives.

We also expressed concerns about the Tumamoc globeberry, (*Tumamoca macdougalii*) (globeberry) and Sonoran desert tortoise (*Gopherus morafkai*) (tortoise). We listed the globeberry as endangered in 1986 and then delisted the species in 1993 after surveyors found it to be more abundant and widespread than we thought in 1986. However, monitoring in recent years indicates serious declines are occurring in populations in Pima County.

We removed the Sonoran desert tortoise from the candidate species list in 2015, and returned it to the candidate list in 2020 due to an August 3, 2020, court-approved settlement agreement (85 FR 73164). The existence and implementation the 2015 Sonoran desert tortoise Candidate Conservation Agreement (CCA) was a factor in not listing it as a threatened or endangered species. As a signatory to the 2015 Sonoran desert tortoise CCA, we trust that ADOT will honor its conservation commitments.

### The PRDEIS

On August 30, 2019, we submitted comments to ADOT and FHWA on the I-11 Public Review Draft Tier 1 EIS (PRDEIS) and Section 4(f) Evaluation through DOI's Office of Environmental Policy and Compliance (OEPC), in the form of a letter addressed to FHWA's Division Administrator in Phoenix, and an attachment containing our general and specific comments. In that review, we re-iterated and expanded our concerns about the TMC, PPC, and proposed Gila River crossing. We identified a new concern involving the alignment of I-11 through Public Land Order (PLO) 1015 waterfowl refuge lands managed by the Arizona Game Fish Department along the Gila River in Maricopa County. Like the TMC, these lands are protected under Section 4(f) and require a 4(f) evaluation if the lands are impacted by a highway construction project. We are pleased that I-11 planners quickly determined that they could avoid these lands by minor adjustments to the Recommended Alternative.

### **The AFEIS**

We did not thoroughly review the January 2021 Administrative Final Tier 1 EIS (AFEIS), but briefly examined Chapter 3.14 (Biological Resources), Chapter 6 (the Preferred Alternative), and Chapter 7 (Summary of Mitigation and Tier 2 Analysis). First, we describe briefly the Preferred Alternative, which seems likely to advance to Tier 2 for additional study and analysis, and contrast it with the Recommended Alternative—the build corridor that was identified in the ADEIS and PRDEIS. The Preferred Alternative includes several important adjustments to the Recommended Alternative that reflect concerns raised by cooperating agencies and the public

during earlier reviews. We also provide brief general comments about the AFEIS and specific comments about the Pima pineapple cactus, Tumamoc globeberry, and Sonoran desert tortoise.

### The Preferred Alternative

We consider the Preferred Alternative in sections (identified by bold type), from the alternative's southern starting point, the SR 189/I-19 interchange in Nogales, to its northern endpoint, a tie in to US 93 just north of Wickenburg.

**Nogales to the Santa Cruz/Pima County Line (near Sahuarita)**—In this segment, the Preferred Alternative would be co-located with I-19 (the same as the Recommended Alternative).

**Sahuarita to Marana**—In Pima County, the Preferred Alternative will advance two options to Tier 2—the west option (through Avra Valley and the TMC) and east option (through Tucson). This will provide additional time to consider impacts to the TMC, as compared to impacts to historic and recreational 4(f) properties in Tucson, and will allow a more informed decision when ADOT and FHWA select one of the options to be part of the Preferred Alternative. Carrying both options forward is a direct response to concerns about the environmental and natural resource impacts to Avra Valley (a relatively undeveloped area) and the TMC, expressed by DOI, the City of Tucson, other agencies, and the public.

**Marana to Casa Grande**—Like the Recommended Alternative, in this segment, the Preferred Alternative would be a new corridor, with minor adjustments to minimize adverse effects to the Santa Cruz River floodplain in response to U.S Army Corps of Engineers (USACE) comments, and to re-locate the connector to I-10 in response to comments from the Town of Marana.

**Casa Grande to Buckeye**—In this segment, the Preferred Alternative connects to SR 85 south of Buckeye and is co-located with SR 85 and I-10 in western Maricopa County. The new alignment reduces the amount of new construction and avoids new Gila and Hassayampa river crossings.

**Buckeye to Wickenburg**—The Preferred Alternative is a new corridor on a new Alignment in this segment. It incorporates a shift to tie into US 93 slightly west of the Recommended Alternative to minimize adverse effects to residences, floodplains, wildlife linkages, and Sonoran desert tortoise habitat.

### Mitigation Commitments in the AFEIS

The AFEIS includes 35 mitigation commitments addressing the range of concerns expressed by DOI bureaus directly to ADOT and the FHWA in 2018, and through OEPC in 2019 (see pages 3.14-22 to 3.14-26). Mitigation measures capture the need for protocol surveys of listed and special status species to assess adverse effects, and the need to avoid, minimize, or compensate for those effects, including effects to designated and proposed critical habitats. Commitments include broad-based studies of wildlife movements, connectivity issues, and the design and construction of wildlife crossings. ADOT and FHWA provide mitigation measures in general

terms and as species-specific actions. Some mitigation measures will occur before Tier 2, others during Tier 2. Overall, the project proponents have proposed an ambitious program of wildlife studies, mitigation programs, habitat enhancements, and compensation to offset project impacts and resource losses.

### General Comments on the Tier 1 AFEIS

The objective and analytical approach of Tier 1 was clearly described in the Reviewer Guide of the 2018 draft EIS, and in the Introduction and Executive Summaries of the 2019 draft EIS and administrative final EIS (the current document). The primary purpose of Tier 1 is to compare differences among the build corridor alternatives and identify a 2,000-foot-wide recommended alternative to advance to Tier 2 for further analysis. During Tier 2, ADOT will refine the 2,000-foot-wide corridor down to a 400-foot-wide right-of-way. In theory, the recommended alternative is the one that will best meet the purpose and need of I-11 and result in the fewest impacts or at least impacts that the action agency can reduce to an acceptable level.

We find that ADOT and FHWA have properly identified affected wildlife and other biological resources within the I-11 study area and have attempted to address potential impacts of the proposed action from a Tier 1 perspective. Mitigation measures are also adequate for most but not all Tier 1-level-purposes, as we explain below. We are pleased ADOT and FHWA resolved some concerns about the Recommended Alternative by co-locating more segments of the Preferred Alternative with existing roadways, using an existing bridge to cross the Gila River, and advancing the east and west options in Pima County to assess more fully the comparative effects of the two alignments.

### Species-Specific Comments

We continue to be concerned about potential adverse effects to the Pima pineapple cactus, Tumamoc globeberry, and Sonoran desert tortoise.

**Pima Pineapple Cactus**—We re-emphasize key points from earlier reviews: First, the proposed action will almost certainly adversely affect the PPC at levels well above any other listed or candidate species in the study area. Second, mitigation and compensation for PPC losses will be possible only if losses do not involve a substantial proportion of the remaining PPC population, which is probably under 8,000 individuals, and to the extent that PPC conservation bank credits or mitigation lands are available for purchase. Third, ADOT and FHWA ultimately may need to choose among other corridor alternatives where PPC numbers are lower if they cannot effectively minimize, reduce, or eliminate adverse effects within the Preferred Alternative. Finally, we remind ADOT and FHWA, as we have in the past, that the goal of the Tier 1/Tier 2 process, in the case of the PPC, is to avoid jeopardizing the species when we evaluate ADOT/FHWA's project under Section 7 of the Endangered Species Act. We strongly recommend that PPC surveys in all corridor options and development of a preliminary mitigation/conservation plan at the earliest possible date. We also remind ADOT that the west option of the Sahuarita to Marana segment may have more PPC and PPC habitat than any build corridor option considered in the draft and administrative final EISs.

**Tumamoc Globeberry**—ADOT planners are aware that this species occurs in Pima County and has declined in the county in recent years. Yet, the AFEIS mentions it only in passing. There is no clear commitment in the AFEIS that surveys for the plant will occur and no specific mitigation/conservation measures are proposed. We hope ADOT will include additional details about its intentions with regard to the globeberry in the final EIS (FEIS). We are particularly concerned about potential effects of the Sahuarita to Marana west option on lands set aside in Avra Valley to preserve populations of this species.

**Sonoran Desert Tortoise**—As we mentioned above, we returned the tortoise to the candidate list in 2020 as the result of an August 3, 2020, court-approved settlement agreement (85 FR 73164). The AFEIS does not mention this development. ADOT should update the final EIS with this information and clearly state its intentions with regard to the commitments it made under the Sonoran desert tortoise CCA. We acknowledge ADOT's intent to conduct tortoise surveys in the Preferred Alternative during Tier 2, as described on page 3.14-23.

## Conclusions

- One risk of a tiered NEPA process is that a recommended or preferred corridor alternative will advance to Tier 2 based on inadequate data. We conclude that this is not the case for most species and biological resources considered in the AFEIS. Overall, we are satisfied that no surprises where those species and resources are concerned are likely to occur—and acknowledge that specific mitigation strategies can await preconstruction and species-specific protocol surveys during Tier 2.
- The endangered PPC is restricted in its range and total population, and may occur in large numbers in all build corridor alternatives considered in the draft EISs. In the absence of occurrence data (numbers and distribution), based on field surveys in all corridor alternatives, there is no reason at this time to conclude that an effective strategy to offset potentially large PPC losses is possible. In the case of the PPC, ADOT's Tier 1-level analysis likely has not provided the level of detail needed to fully inform selection of a Preferred Alternative.
- The Tumamoc globeberry is unlikely to occur in large numbers in the west option of the Preferred Alternative, or in the Preferred Alternative overall, and the number of affected plants is unlikely to represent a substantial proportion of the species' remaining range-wide population. However, given evidence that the species is declining in Pima County, some populations by as much as 85%, measures to avoid or minimize project effects will be important. We encourage ADOT to include a status assessment for the globeberry and appropriate conservation measures in the FEIS.

**Attachment 4 – Comments from NPS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.**

#	Chapter/ Section	Page/ Table	Title/ Topic	Line(s)	Reviewer	Comments	Disposition
1	Executive Summary	ES-7	Tables ES-2		NPS	NPS appreciates the side-by-side comparisons across the alternatives. For Table ES-2, please label these as Peak Period afternoon travel times as is identified later in Table 1-3 and in Appendix E2.	
2	Executive Summary	ES-9	Table ES-3		NPS	Please include the 28,708-acre Tucson Mountain Park Historic District in the table for NRHP-eligible historic districts along the Preferred Alternative – West Option. The National Park Service would be happy to provide the information to FHWA necessary to analyze effects to this resource, including coordinating provision of documents through the AZ SHPO.	
3	Community Resources, Title VI, & Environmental Justice	3.5-2		14-20	NPS	Per NPS <i>Management Policies 2006</i> , 5.3.5.3 and EO 13007, the NPS will “ <i>strive to allow American Indians and other traditionally associated peoples access to and use of ethnographic resources.</i> ” Although the Preferred Alternative – West Option does not cross the park boundary, it will impact access to the park’s unique ethnographic and ethnobotanical resources utilized by members of the Tohono O’odham Nation. Through authorization under an existing FONSI and MOU, tribal members come to Saguaro NP every year for cactus fruit harvest. The atmosphere provided for these sacred traditions in the park (both day and night) would be compromised by the project’s impacts to natural sounds and night skies, and the ambience of the ethnographic traditional use on the western side of the park. The harvest camp and harvesting grounds are the closest locations to the project area within the park, making tribal members of the Tohono O’odham Nation the group of people who could be most negatively impacted at Saguaro NP. NPS appreciates your consideration of the unique ethnographic use of this area and suggests further analysis in the Tier 2 study to identify if specific communities whose access to and traditional use of the park may be impacted by the Proposed Alternative – West Option.	
4	3.6 Economic Impacts	3.6-2		17-21	NPS	NPS shares the City of Tucson’s concerns about regional economic impacts, particularly in the tourism sector: the Preferred Alternative – Western Option has potential to impact many resources at Saguaro NP, ultimately diminishing visitors’ experience. In 2019, Saguaro National Park attracted over one million visitors with an economic output of \$98 million, with more than 98% of this economic output coming from non-local visitors. (Cullinane Thomas, C., and L. Koontz. 2020. <i>2019 National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and The Nation</i> . Natural Resource Report NPS/NRSS/EQD/NRR—2020/2110. National Park Service, Fort Collins, Colorado.) Please disclose these effects in the FEIS, or include these NPS-specific statistics and analysis in the Tier 2 study.	
5	3.14	Fig. 3.14-4	Map of Large Intact Block Clusters	NA	NPS	Please include a detailed map of the “2” group clusters that includes the Tucson Mitigation Corridor, and for the same map in Appendix E-14.	
6	3.14	Table 3.14-3	Summary of Large Intact Block Clusters	NA	NPS	Please explain what the corresponding numbers mean for each identified alternative (e.g., under 2D-Green Alternative there is listed 117,003, 22,808, 787, 5, 1): because Figure E14-10 is at such a large scale, it is difficult to understand where the block boundaries are, it is difficult for the reader to interpret. See similar comment in Appendix E-14.	



7	3.14	3.14-14	Preferred Alternative	20	NPS	The statement that " <i>the Preferred Option, with either option, would impact a smaller surface area of the vegetation communities</i> " implies that the Preferred Alternative - East Option damages as much natural desert based on Figure 3.14-1. Please clarify this statement.	
8	3.14	3.14-20	Wildlife Connectivity	1	NPS	The Coyote-Ironwood linkage would be solely impacted by the Preferred Alternative - West Option, please add similar comment as in lines 3.14-4 unless there is a linkage that is not clear from Figure 3.14-1	
9	3.14	3.14-20-21	Wildlife Connectivity	35-37	NPS	Please state in the AFEIS that the purpose of the Tier 2 evaluation will be to analyze the relative impacts of the Preferred Alternative – West Option against the Preferred Alternative – East Option, balancing proposed mitigations for both options.	
10	3.9.6.1, 7	3.9-7, 7-6	Tier 2 Analysis Commitments	9-21	DM	NPS notes that the AFEIS recognized that simulations of the corridor may be conducted in the Tier 2 analysis. NPS re-emphasizes that simulations of the corridor, produced at a suitable scale, could more clearly show potential changes in the landscape. The most recent Federal Land Managers Air Quality Related Values Workgroup (FLAG) guidance is the appropriate method for AQRV impact assessments. NPS requests the simulations be prepared in accordance with guidance in Chapter 5 of the Guide to evaluating visual impact assessments for renewable energy projects, available at: <a href="https://irma.nps.gov/DataStore/Reference/Profile/22142">https://irma.nps.gov/DataStore/Reference/Profile/22142</a> .	
11	3.10.6.1,7	3.10-5, 7-7	Tier 2 Analysis Commitments	9-23	DM	Please ensure that the Tier 2 analysis commits to an analysis of the air quality impacts that could result from induced growth from the Preferred Alternative – West Option on Saguaro NP.	
12	3.10.1	3.10-1	Air quality	29-31	DM	" <i>Transportation sources do not significantly contribute to visibility impairment in these Class I areas (ADEQ 2011)</i> ": transportation sources emit visibility-impairing pollutants including nitrogen oxides and soot (particulate matter). These pollutants can have negative contributions to visibility at Class I areas such as Saguaro National Park if they are emitted in sufficient quantities and meteorological conditions are favorable for aerosol formation and transport to the area. This project's effect on visibility at any Class I areas will only be concluded when a full quantitative air analysis is completed, therefore, we request FHWA please acknowledge this potential in the FEIS or recognize the need for further evaluation in the Tier 2 study.	
13	Appendix E2				NPS	The proposed FHWA Sonoran Corridor by itself has the potential to provide direct multimodal connectivity between I-11 and I-10 and could contribute to increase project traffic loads that should be acknowledged as a cumulative action. Construction of the Preferred Alternative for the Sonoran Corridor (identified in the Nov 2020 DEIS) and Preferred Alternative-Western Option for I-11 could substantially increase traffic loads and impacts to sensitive resources, particularly during periods of congestion in downtown Tucson when through-traffic may favor the Preferred Alternative – West Option of I-11. Please include analysis of traffic loads from the Sonoran Corridor project to better assess cumulative impacts to air quality, including effects to Saguaro, a Class I Airshed under the Clean Air Act.	
14	E14	Fig. E14-10	Wildlife Linkages	NA	NPS	Please provide a detailed map of the Tucson Mountain area that includes Important Bird areas, Large Impact Block Clusters, and the Tucson Mitigation Corridor.	
15	Appendix E14	p. E14-3	The Wilderness Act	lines 33-35	NPS	The description of the Wilderness Act in this section has omitted critical components of this law that govern NPS management of the Saguaro Wilderness. Wilderness areas are to be managed to a much higher standard than the prohibited uses listed in this summary. Excerpts from the Wilderness Act indicate that "...each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area", and "...wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific,	



						educational, conservation, and historical use..." Wilderness character consists of five qualities which guides the NPS management and protection of the Saguaro Wilderness: 1) Natural - Ecological systems are substantially free from the effects of modern civilization. 2)Untrammeled - Wilderness is essentially unhindered and free from the intentional actions of modern human control or manipulation.3) Undeveloped - Wilderness is essentially without permanent improvements or the sights and sounds of modern human occupation. 4) Opportunities for solitude or primitive and unconfined recreation - Wilderness provides opportunities for solitude or a primitive and unconfined type of recreation.5) Other features of value - Wilderness may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. Thank you for expanding the description of the Wilderness Act to encompass the full protections afforded by a designated wilderness, such as the Saguaro Wilderness.	
16	Appendix E-2	Pg. 13-14	Travel Forecasting Methods		KSS-LD	Through the Tier 1 analyses, the AZ (state) model has been used thus far. The AFEIS notes on page 14 of Appendix E2 that " <i>More detailed Tier 2 environmental studies would likely use the regional models,</i> " however, regional models are usually appropriate for smaller areas. Please elaborate in the Tier 2 analysis the rationale for using regional or state models to assess which model forecasts the highest travel demand and/or movements. Subsequently, the highest demand should be used in Tier 2 analyses, including environmental study assumptions, such as mobile source emissions (EPA MOVES model).	
17	Appendix E14.1.3 Local Ordinances	p. E14-6	Pima County Buffer Overlay Zone		NPS	As shared in the DOI comments for the DEIS (July 2019), the Pima County Buffer Overlay Zone is an important land management ordinance established in part to: "3. Establish mechanisms that will protect the public preserves and result in an ecologically sound transition between the preserves and more urbanized development; 4. Assure the continued existence of adequate wildlife habitat and foster the unimpeded movement of wildlife in the vicinity of Pima County's public preserves..." (Pima County Code of Ordinances § 18.67). NPS thanks FHWA for including discussion of the Pima County Buffer Overlay Zone to this appendix, please update the "relevant laws and regulations" pertinent to this Zone.	
18	Appendix E 14	Tables, pages 40-44 and page 9	Federally Listed Species	17-24	NPS	Please update the analysis and tables to consider effects to federally listed species on National Park lands: the USFWS IPAC database reflects existence of federally-listed species on NPS land. Please coordinate with the NPS and/or FWS for the updated list of Threatened and Endangered species that should be considered on NPS lands for this analysis. We believe there will be effects on these species due to population fragmentation and habitat loss.	
19	Appendix E14	E14-103	Migratory birds	1-15	NPS	"Impacts to migratory birds can be mitigated with standard construction techniques and species-specific mitigation measures developed in Tier 2 analysis," however, migratory birds vary greatly in their ecology and natural history and birds (elf owls, for example) may be harmed by loss of landscape connectivity. Please ensure the Tier 2 analysis and mitigation pays attention to flycatchers, swallows, and orioles that migrate at lower altitudes by day.	
20	Appendix E14	E14-108-9	Large Intact Blocks	NA	NPS	Line 2 on page 109 states " <i>Options C, F, and part of D...could potentially restrict wildlife movement...</i> " suggesting that the impacts to Large Impact Blocks by these alternative routes is equivalent to Option B. However, each option will have its own specific level of impact on wildlife movement. Please identify how the Large Impact Blocks will be impacted by each specific route.	
21	Appendix E 14	E 14-1	Regulatory Setting	Lines 23-27	NPS	While the NPS coordinates with AZ Game and Fish in some cases over the management of wildlife, well-established case law makes it clear the NPS has jurisdiction over wildlife in Saguaro National Park. The NPS requests this jurisdiction be stated in lines 23-27. The NPS has jurisdiction stemming from the Organic Act, and under 35 CFR 2.2 which regulates the	

						protection of wildlife with NPS areas and prohibits the taking of wildlife. The Property Clause also give Congress the power to protect wildlife on public lands, the state law notwithstanding.	
22	ES.1	ES-1		Lines 10-30	NPS	We appreciate the list of previous transportation planning efforts summarizing the related documents that have led to the development of this AFEIS. It appears that two other recently published, high-level planning efforts that would contribute to cumulative effects should be included in the AFEIS: 1) ADOT's I-10 Phoenix-Tucson Bypass Study (2008); and 2) ADOT's Final Tier I EIS and ROD for the Arizona Passenger Rail Corridor Study (2016).	
23	Appendix H2	8	NPS Comments #68 and #69 and ADOT/FHWA Responses		NPS IMR-NR	Please address wilderness character: response to previous NPS comments fail to note whether or how 23 USC § 109(i) and 23 CFR 772 addresses wilderness solitude. Please revise the statement that “ <i>ANSI/ASA S12.100 is not approved by ANSI</i> ”: ANSI/ASA S3/SC1.100-2014/ANSI/ASA S12.100-2014 (R2020) is current and was reaffirmed in 2020. For more information, please visit: <a href="https://acousticalsociety.org/acoustical-society-standards/">https://acousticalsociety.org/acoustical-society-standards/</a>	
24	Appendix F	12	Historic Sites	16	NPS	In addition to numerous prehistoric sites within the park, the Tucson Mountain Park Historic District is a designed park landscape of 28,708 contiguous acres on the western slopes of the Tucson Mountains in Pima County, Arizona: Tucson Mountain Park Historic District has been deemed historically significant under National Register of Historic Places Criteria A, and C at the state level of significance, by the Keeper of the National Register.  NPS believes that the FEIS (and the Tier 2 study) should identify the significance of the park under Criterion A and C in the categories of Politics/Government and Entertainment/Recreation and Architecture and Landscape Architecture associated with the Civilian Conservation Corps (CCC) and New Deal. To better understand how ambient qualities may enhance or diminish the historic integrity of the Tucson Mountain Park Historic District, NPS recommends the Nomination Form be integrated into the FEIS, upon provision from the NPS or Arizona State Historic Preservation Office (SHPO).	
25	Appendix F	12	Ecological Intrusion	1-3	NPS	Please see previous comment on the categorization of Saguaro National Park (NPS comment #28): the NPS continues to assert that the proposed Avra Valley alignment will have significant impacts on the ecological health and biological integrity which the Park is mandated to manage for future generations.	
26	Appendix F		General Comment		NPS	We note FHWA's argument to classify Saguaro National Park as a "park and recreation resource" (p. 3, lines 12-18); however, direct impacts to recreation should be analyzed as a standalone impact topic as are other impact topics. Within this Constructive Use analysis there is no mention of potential impacts to the park's diverse user groups; the more than one million people who visited the park in 2019; the more than \$97 million in recreation-related economic output; and the estimated 928 jobs supported by the park's recreational users. (Cullinane Thomas, C., and L. Koontz. 2020. <i>2019 National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and The Nation</i> . Natural Resource Report NPS/NRSS/EQD/NRR—2020/2110. National Park Service, Fort Collins, Colorado). As a cooperating agency, NPS would welcome the opportunity to work with FHWA to ensure effects to NPS-managed lands are adequately and accurately analyzed.	

27	Appendix F		General Comment		NPS-KSS	The Tucson Mountain Park Historic District (28,708 acres) should be identified and analyzed for Section 4(f) Constructive Use within this Appendix. This Historic District is 200' from the western Preferred Alternative and overlaps with Saguaro National Park.	
28	Appendix F		General Comment		NPS-KSS	This Constructive Use analysis should mention Cumulative Effects or Indirect Effects from induced development. As a multimodal project, we anticipate that the impact from planned future uses of railroad and utility, along with induced development will further cause Constructive Use impacts.	
29	Appendix F	8			NPS-KSS	The Saguaro Wilderness has been designated by the US Congress with the full protections of the Wilderness Act to preserve the qualities of serenity and quiet identified here under Category A in the Noise Abatement Criteria Table. As such, this area is more appropriate for consideration and analysis under Activity Category A.	



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
2800 Cottage Way, Rm E-1712  
Sacramento, California, 95825

In Reply Refer To:  
19/0143 4(f)

*Filed electronically*

February 26, 2021

Ms. Karla Petty  
Division Administrator  
Federal Highway Administration  
4000 N. Central Ave., Suite 1500  
Phoenix, AZ 85012

Subject: Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona, dated January 2021

Dear Ms. Petty:

This letter is in response to your request for the United States Department of the Interior's (Department) review of the *Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona* (I-11 AFEIS), dated January 2021. In accordance with the request from FHWA, the Department provided comments on the I-11 AFEIS under separate a cover letter dated February 10, 2021 and now provides the following comments on the Section 4(f) analysis on behalf of its bureaus: the U.S. Bureau of Reclamation (Reclamation), the U.S. Fish and Wildlife Service (FWS), and the National Park Service (NPS).

## **Historic Transportation Proposals Through the Tucson Mitigation Corridor.**

### ***Regional Transportation Plan***

In the early 1980's, Pima County conducted a planning process for a regional transportation plan. The plan included a proposal for the San Joaquin Road extension through the Tucson Mitigation Corridor (TMC). Reclamation sent various letters to the County describing the conflict with Reclamation's habitat protection commitment for the TMC. In a letter to Pima County dated December 27, 1988 Reclamation opposed the rezoning of the TMC for the construction of the San Joaquin Road extension. Reclamation stated:

*The San Joaquin Road extension is absolutely incompatible with the goals for this land and its wildlife values.*

During the same planning process, FWS also sent a letter to Pima County. The letter is dated December 19, 1988 and provides comments on the proposed road extension relative to the TMC:

*...the sole purpose of this land is for wildlife mitigation. Placement of a public road across it would seriously violate the integrity of this land and critically diminish its value for wildlife.*

### ***I-10 Phoenix-Tucson Bypass Study***

Department of the Interior Bureaus cooperated during the development of the Arizona Department of Transportation's (ADOT) 2007-2008, *I-10 Phoenix-Tucson Bypass Study*. Corridor H for that project is similar to the Western Option under consideration in the I-11 AFEIS and was also designed to traverse the TMC. The final report (January 2008) stated on page 4-19:

*Corridor H would encroach upon either the Tucson Mitigation Corridor or the Indian reservation. As a result, Corridor H may not pass the fatal flaw test.*

Reclamation opposed another effort at an Avra Valley bypass in a December 19, 2008 letter to the State Transportation Board. Reclamation reiterated that the 1990 Tucson Mitigation Corridor Cooperative Agreement and Master Management Plan (MMP) for the TMC prohibits any future development within the area other than future wildlife habitat improvements or developments agreed to by Reclamation, Arizona Game and Fish Department (AGFD), FWS, and Pima County. Consistent with the requirements in the MMP, Reclamation continued to oppose developments within the TMC. Additionally, in the December 19, 2008 letter, Reclamation submitted the following statement:

*...the Bureau of Reclamation has no intention of allowing our Central Arizona Project right-of-way or Tucson Mitigation Corridor to be used for the bypass project. We believe the status of these lands as a wildlife preserve should rule out this bypass corridor from further consideration. By identifying this Corridor H as the only bypass corridor to be studied further, the Transportation Board will be setting up a future conflict with Reclamation and the Department of the Interior.*

These statements continue to speak to the Department's position on development within the TMC. This property was established as a firm conservation commitment made through a complex, multi-decadal planning process to construct the Tucson Aqueduct-Phase B as part of the Central Arizona Project (CAP). In the Tucson Aqueduct Phase B Environmental Impact Statement and the TMC's MMP, Reclamation memorialized its long-term commitment to preserve the property. Reclamation and the signatories of the TMC's MMP have opposed infrastructure proposals within the TMC in each of the past four decades since the property was established, and the Department will continue to uphold this position as the I-11 EIS advances to Tier II.

### **Tucson Mitigation Corridor**

Reclamation acquired title to the 2,514-acre TMC in 1987, and the total present-day cost of the TMC is approximately \$15 million. The land was purchased to partially mitigate biological impacts from the CAP Tucson Aqueduct-Phase B. Reclamation's letter dated January 2, 2020 to the Federal Highway Administration (FHWA) provided further explanation that the primary



purpose of the TMC is, “to mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west.” Additionally, the CAP was modified to accommodate the TMC. In Reclamation’s Final EIS for the CAP Tucson Aqueduct-Phase B, Reclamation identified specific environmental commitments and mitigation measures to reduce project impacts. In accordance with the Fish and Wildlife Coordination Act of 1958 (PL 85-624, 16 U.S.C. 661 et seq.), Reclamation, AGFD, FWS, and several public conservation groups agreed on a specific parcel (i.e., TMC) for mitigation. In 1990, Reclamation, FWS, AGFD, and Pima County signed a Cooperative Agreement. The Cooperative Agreement states:

*WHEREAS, lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition [16 U.S.C., section 663(d)].*

The MMP prohibits any future development within the area other than existing wildlife habitat improvements or developments jointly agreed to by Reclamation, AGFD, FWS, and Pima County.

The true value of the TMC is the functional and critical role the property plays in maintaining the primary wildlife movement corridor between the Tucson Mountains and west across Avra Valley to the Roskrige Mountains and Ironwood Forest National Monument (IFNM). The corridor supports multiple biological processes that are critical to the ecological health of Saguaro National Park (SNP) and Tucson Mountain Park (TMP), both Section 4(f) properties found within the Tucson Mountains that total approximately 44,818-acres. A “use” or impact to the TMC would result in correlated and compounding impacts to not only SNP and TMP, but other properties west across Avra Valley. As a result of this role, Reclamation has viewed and managed the TMC as a Section 4(f) property of unique significance and critical importance.

### **West Option impact on the Purpose of the TMC**

The West Option through Avra Valley would defeat the purpose of the TMC because Reclamation established the TMC and designed the siphons to provide multiple crossings for wildlife under relatively natural, undisturbed conditions. Aligning an interstate highway next to the CAP aqueduct represents a substantial alteration of those conditions, diminishing the purpose of the TMC. The Department can reasonably expect adverse effects to wildlife connectivity, gene flow, and populations from the West Option.

### **General Section 4(f) Comments**

The Tucson Mountain District of SNP was established to protect its natural resources, scenic beauty, and habitat from various threats associated with the growth of metropolitan Tucson. Because many wildlife species rely on the ability to move in and out of SNP and TMP to meet their water needs throughout the year, SNP works closely with adjacent land managers and neighbors to assist in providing habitat (and water sources) that maintain healthy wildlife populations. These needs have been recognized and formalized through federal and local efforts. As mentioned above, Reclamation established the TMC to protect its function as the primary wildlife corridor for the entire Tucson Mountains. Additionally, Pima County established the

Pima County Buffer Overlay Zone, in part to: “3. *Establish mechanisms that will protect the public preserves and result in an ecologically sound transition between the preserves and more urbanized development*; 4. *Assure the continued existence of adequate wildlife habitat and foster the unimpeded movement of wildlife in the vicinity of Pima County's public preserves...*” (Pima County Code of Ordinances § 18.67). Finally, the Sonoran Desert Conservation Plan has identified critical wildlife corridors within the project study area which connect the park to other adjacent conservation lands.

The Department does not agree with the Section 4(f) Finding of No Constructive Use determination for Saguaro NP and the Saguaro Wilderness. While we recognize Federal Highway Administration regulations (23 CFR § 774.15(c)) give FHWA authority in determining whether to prepare documentation of a Section 4(f) Finding of No Constructive Use, we believe that the proximity of the western Preferred Alternative to Saguaro NP (0.3 mi) and the federally-designated Saguaro Wilderness (0.6 mi) would meet the definition of a Constructive Use by causing *substantial impairment* to the core purposes for which these areas were protected through Congressional action. The Department believes that there would be un-mitigatable impacts from this project (described below and in further detail in the attached matrix) that would impact natural and cultural resources and substantially diminish the recreational experiences sought by the public in these areas.

The Department is concerned that the summary statistics for Potential Use of Section 4(f) properties (e.g., Table ES-3, p. ES-10), are currently cited as “eight” for the Preferred Alternative - East Option and “two” for the Preferred Alternative - West Option. We recommend that FHWA include further analysis in Tier 2 to more accurately capture potential impacts to both alternatives based on what is currently known. The Department notes that mitigations are presented for the Section 4(f) properties along the Preferred Alternative - West Option, but not for the Preferred Alternative - East Option. Starting in Section 4.6.3.3, an extensive multi-page discussion of mitigations to the Tucson Mitigation Corridor are provided, but there is no in-depth, detailed discussion of mitigation strategies pursued for each of the Section 4(f) properties along the Preferred Alternative – East Option.

In addition to the comments below and the attached matrix, please recognize that, currently, the AFEIS summary for Potential Use of Section 4(f) properties minimizes the role of the Tucson Mitigation Corridor (TMC) as a wildlife corridor and gene flow conduit. As mentioned above, the TMC was created to adjoin the 4(f) properties which rely upon its continued role in facilitating wildlife movement and gene flow, and any disruption to this function would have continued effects on additional Section 4(f) properties and designations including Saguaro National Park, Tucson Mountain Park, Ironwood Forest National Monument, the Saguaro Wilderness, the Tucson Mountain Wildlife Area, the Tucson Mountain Park Historic District, and lands of the Tohono O’odham Nation. We look forward to further in-depth, detailed discussion of the use of and potential impacts to the TMC and related Section 4(f) properties.

## **Alternatives**

In order for the West Option to be chosen FHWA and ADOT cannot defeat the initial purpose of the TMC as identified in 16 U.S.C., section 663(d). Evaluating potential impacts to the purpose of the property requires knowledge of the connectivity and ecosystem and biological processes associated with the property. Ensuring the preservation of connectivity through the TMC would require more than the construction of wildlife bridges and compensation for the direct loss of

over 96-acres; it would require that the key ecosystem and biological processes that the TMC was specifically acquired for, would continue. Those processes were identified by Reclamation prior to acquisition in comment letters from Subject Matter Experts, and in the March 1984 Fish and Wildlife Coordination Act Report (FWCA Report), written by the USFWS, the agency Congress entrusted with certain duties to consult on federal proposals to impound, divert, or otherwise control or modify any stream or other body of water (16 U.S.C., section 663(d)).

The Department agrees with the scientific community that overpasses can improve permeability, but their success can only be judged on a project specific basis. While research has shown a broad range of species can and do use wildlife overpasses, research has done little to verify their effectiveness, because use does not equate to effectiveness (Seth et al. 2006; Corlatti et al. 2009; Lesbarreres and Fahrig 2012; A. van der Gift et al. 2013, Gregory and Beier 2014). A study by Seth et al. (2006) found that observed migration rates of coyotes (*Canis latrans*) and bobcats (*Lynx rufus*) across the Ventura Freeway in southern California was a poor surrogate for evaluating gene flow. While the study did document mild levels of migration, populations on either side of the freeway were genetically differentiated and implied that individuals who crossed rarely reproduced (Seth et al. 2006). This uncertainty limits the ability of how best to mitigate impacts from roads and which impacts can be successfully mitigated (Soanes et al. 2017).

When FHWA is preparing the Tier 2 analysis and Individual Section 4(f) Evaluation, the TMC should be identified as a property of unique or otherwise of special significance due to its critical role as the primary movement corridor for SNP and TMP, both significant Section 4(f) properties. An important component of that evaluation is 16 U.S.C., section 663(d) of the FWCA, which describes the use of acquired properties and the prohibition against exchange or other transactions that would defeat the initial purpose of the acquisition. As previously mentioned, the Department believes the West Option would defeat the purpose of the TMC because it is reasonable to expect adverse effects to wildlife connectivity, gene flow, and populations. The selection of the West Option in Tier 2 would require the development of significant mitigation and minimization measures. Success would be measured beyond the commitment to construct crossing structures and the acquisition of land for supplemental corridors. If minimization and mitigation developed for the TMC were deemed inadequate and/or genetic divergence of taxa was identified or predicted, then the initial purpose would be defeated and criteria in the FWCA would not be met. Adaptive management is a mitigation option; however, the Department does not consider that reasonable because there would be no guarantee that the additional measures would help or be feasible for reversing its conclusion. The Department understands the challenge this presents to FHWA and ADOT, and Reclamation and the relevant Departmental Bureaus, including FWS and NPS, are willing and interested in continuing to review FHWA's future development of minimization and mitigation measures.

### **Additional Comments**

In addition to the comments above, the Bureaus provide additional comments in the attachments to this letter as follows:

- **Attachment 1** – *Comments from Reclamation on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*

- **Attachment 2** – *Comments from FWS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*
- **Attachment 3** – *Comments from NPS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*

Thank you for the opportunity to provide comments. We look forward to continued work with the FHWA and ADOT. For questions regarding specific comments please contact Mr. Bob Lehman with FWS at 602-242-0210 or via email at [Robert\\_lehman@fws.gov](mailto:Robert_lehman@fws.gov), Mr. Jeff Conn with NPS at 623-773-6250 or via email at [jeffery\\_conn@nps.gov](mailto:jeffery_conn@nps.gov), Mr. Sean Heath with Reclamation at 623-773-6250 or via email at [sheath@usbr.gov](mailto:sheath@usbr.gov). For all other comments or questions please contact me at 415-420-0524 or via email at [janet\\_whitlock@ios.doi.gov](mailto:janet_whitlock@ios.doi.gov).

Sincerely,

JANET

WHITLOCK

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JANET WHITLOCK  
Date: 2021.02.26  
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Janet L. Whitlock

Regional Environmental Officer

Attachments

cc

Shawn Alam, DOI

Jeffery Conn, NPS

Sean Heath, USBR

Robert Lehman, FWS

### **Literature Cited**

- Corlatti, L., K. Hacklander, and F. Frey-Roos. 2009. Ability of wildlife overpasses to provide connectivity and prevent genetic isolation. *Conservation Biology*. 23:548-556.
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**Attachment 1 - Comments from Reclamation on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.**

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
1	4.5.1.2	4-38		3-7	Reclamation	<p>Section 4.5.1.2 lists eight potential 4(f) properties in Pima County and states the 4(f) evaluation for those properties would take place during the Tier 2 analysis. Table 4-4 identifies and compares the potential use of 4(f) properties for the build alternatives but does not include these eight properties.</p> <p>Reclamation requests additional information be incorporated on why the 8 Pima County properties were not evaluated for Section 4(f) protection within the Administrative Draft. Additionally, an updated Least Overall Harm Analysis should be made to incorporate the newly identified county properties that fall under Section 4(f) protection. The Section 4(f) properties along Segment B should also be reevaluated to determine which ones would still fall under "use" as a result of the City of Tucson recommending the elimination of frontage roads to avoid impacts to Section 4(f) properties in their October 29, 2019 letter.</p>	
2	4.6.3.2	4-93		6	Reclamation	<p>Follow up to a question submitted during the Public Draft process that did not appear to be addressed.</p> <p>"The EIS does not address whether FHWA evaluated other Net Benefit opportunities along Segment B. At a May 22, 2019 Cooperating Agency Meeting FHWA was asked and they stated they had not pursued a Net Benefit option with any other Section 4(f) properties including David G. Herrera and Ramon Quiroz Park. During that meeting they were informed an opportunity exists at Estevan Park located approximately 0.2-miles north. A Net Benefit can be achieved by relocating at the larger park and installing and upgrading newer and additional facilities for the local community. Only a Net Benefit was pursued by FHWA and ADOT on Segment D. "Section 4(f) properties should be identified as early as practicable in the planning and project development process in order that complete avoidance of the protected resources can be given full and fair consideration (23 CFR 774.9(a))". By not considering and pursuing a Net Benefit for the Herrera and Ramon Quiroz Park, FHWA and ADOT did not give full and fair consideration to other 4(f) properties.</p>	
3	4.6.3.2	4-94		43-45	Reclamation	<p>Reclamation recommends the following edit to eliminate language on impacts to properties not covered under Section 4(f) but mentioned within Chapter 4.</p> <p>Reclamation also recommends the addition of the following language within the middle and at the end to make sure the information is impartial and not misleading by only providing cost information for one alternative and scenario.</p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<u>The elevated alternative also would <del>impact businesses and residences that are not protected by Section 4(f) and would</del> add almost \$1 billion to the <del>overall</del> estimated \$585,899,000.00 in capital cost of the Preferred Alternative east option or the Orange Alternative (compare to widening at grade). The estimated capital cost identified in the Tier 1 Public Draft for segment C (Purple) is \$2,371,714,000.00 and \$2,082,061,000.00 for segment D (Green). This results in a difference of \$1,785,815,000 more for constructing Segment C and \$1,496,162,000.00 more for constructing Segment D over and above the cost of constructing Segment B (east option).</u>	
4	4.6.3.2	4-95		16-19	Reclamation	Reclamation recommends the following addition below.  The Preferred Alternative west option would avoid the downtown Tucson properties but, as described in this Section 4(f) Evaluation, would impact Section 4(f) properties on its route, including the Tucson Mitigation Corridor <u>and the 8 separate potential Section 4(f) properties owned by Pima County for wildlife mitigation purposes.</u>	
5	4.6.3.3	4-97		17-20	Reclamation	Reclamation requests the following addition to Line 20.  <u>The 2002 Cooperative Agreement states in part, "Whereas, lands described herein for fish and wildlife purposes shall not become subject to exchange or other transaction if those actions would defeat the initial purpose of their acquisition (16 United States Code, Section 663(d))." In order for the West Option (Segment D or C) to be chosen the initial purpose of the property cannot be defeated. Identified in a January 2, 2020 letter from Reclamation, the purpose of the TMC was identified as: "The primary purpose of the TMC is to mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west."</u>	
6	4.6.3.3	4-99		25-27	Reclamation	Below is summarized information that provides additional background on past attempts by the State Transportation Board, Pima DOT, and ADOT to construct an I-10 bypass through the Tucson Mitigation Corridor (TMC) and Avra Valley.  In the early 1980's Pima County was aware of Reclamation's commitment to the acquisition and protection of the TMC during the planning stages of their regional transportation plan. They were informed that it would conflict with Reclamation's habitat protection commitment for the TMC in letters dated March 19, 1984, February 3, 1987, and March 3, 1989. In another letter dated December 27, 1988 Reclamation opposed the rezoning of the TMC for the construction of the San Joaquin Road	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<p>extension. Within the letter it stated, "the San Joaquin Road extension is absolutely incompatible with the goals for this land and its wildlife values." The U.S. Fish and Wildlife Service sent a December 19, 1988 letter stating the "sole purpose of this land is for wildlife mitigation. Placement of a public road across it would seriously violate the integrity of this land and critically diminish its value for wildlife."</p> <p>In a December 19, 2008 letter to the State Transportation Board Reclamation again opposed another effort at an Avra Valley bypass. They were reminded how the Master Management Plan prohibits any future development within the area other than future wildlife habitat improvements or developments agreed to by Reclamation, Arizona Game and Fish Department, Fish and Wildlife Service, and Pima County. Consistent with the requirements in this management plan, Reclamation continues to oppose developments within the TMC.</p> <p>Additionally, in the December 19, 2008 letter Reclamation, submitted the following statement:  "...the Bureau of Reclamation has no intention of allowing our Central Arizona Project right-of-way or Tucson Mitigation Corridor to be used for the bypass project. We believe the status of these lands as a wildlife preserve should rule out this bypass corridor from further consideration. By identifying this Corridor H as the only bypass corridor to be studied further, the Transportation Board will be setting up a future conflict with Reclamation and the Department of the Interior."</p>	
7	4.6.3.3.	4-99		42-43	Reclamation	<p>The Administrative Draft states the following.</p> <p><u>Also, the multi-level structure would not be desirable with respect to maintenance and future expansion (Factors 1 and 2).</u></p> <p>What future expansion? Was this explained in the Draft EIS? This EIS needs to adequately address how a proposed Avra Valley corridor would not violate 16 USC 663(d) when it would be constructed and for the specified foreseeable <u>future expansion</u>. FHWA and ADOT face a significant challenge of not defeating the initial purpose of its acquisition which is the maintenance and promotion of normal gene flow identified in Reclamation's January 2, 2020 letter to FHWA. Future expansion would impact current proposed mitigation and minimization measures while decreasing the effectiveness of future efforts. Repeated attempts at mitigation for additional or expansion of existing barriers become less and less effective and successful. Prior comments by Reclamation, Fish and Wildlife Service, National Park Service, Arizona Game and Fish Department and other subject matter experts have determined how an Avra Valley bypass and proposed I-11 is not compatible with the goals for this land and its wildlife values and that it would impact the integrity of</p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						this land and appreciably diminish its value for wildlife. The expansion of a transportation corridor would continue to magnify the impacts to the TMC and the Tucson Mountains.	
8	4.6.3.3.	4-100		10-18	Reclamation	The Administrative Draft states that the Tohono O'odham Nation is opposed to a proposed I-11 on and near their lands. The Tucson City Council requested on June 18, 2019 that Segment B be selected, and I-11 be placed through the city. The request was further documented in Resolution No. 23051. Reclamation requests that these requests be described in the comparable section in the EIS.	
9	4.6.3.3.	4-101 to 102		43 and 1-4	Reclamation	<p>Reclamation requests the following edit since it conforms to the documented purpose of the Tucson Mitigation Corridor and legal protection identified in our January 2, 2020 letter to FHWA and the 1990 Cooperative Agreement and Master Management Plan.</p> <p>Because the <u>primary</u> purpose of the Tucson Mitigation Corridor is to <u>mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west.</u> is to enable wildlife movements across the property, FHWA and ADOT coordinated with the Bureau of Reclamation on developing a conceptual roadway right-of-way width and alignment designs that would <u>help</u> minimize impacts to wildlife movements, <u>compared to the interstate being located along Sandario Road.</u></p>	
10	4.6.3.3	4-101		12-15, 15-16, 18-21, 33-35	Reclamation	<p>Reclamation requests the following edits.</p> <p>However, the Bureau of 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 <u>and maintenance and promotion of normal gene flow.</u></p> <p>Specifically, each existing linear facility (Sandario Road and the CAP canal) has some barrier effect on wildlife movements <u>and normal gene flow</u> across the property.</p> <p>The Bureau of Reclamation indicated that I-11/Sandario Road and the CAP canal would form two parallel linear systems that would negatively affect wildlife movements <u>and the maintenance and promotion of normal gene flow</u> to a greater extent than exists today.</p> <p>However, the Bureau of Reclamation was concerned about the negative effects on wildlife movements <u>and the maintenance and promotion of</u></p>	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<del>normal gene flow</del> that would be caused by retaining existing Sandario Road in its current location and the I-11/CAP corridors.	
11	4.6.3.3	4-102		15-18	Reclamation	Reclamation requests the following edit.  The Bureau of Reclamation acknowledges this mitigation measure for this reason and because it would consolidate the I-11/CAP canal infrastructure in one location and <u>may</u> reduce the potential barrier effect <u>as compared to independent alignments</u> <del>I-11 could cause on the Tucson Mitigation Corridor property.</del>	
12	4.6.3.3	4-102		18-21	Reclamation	Please modify the following statement. Current wording is confusing.  "As stated in their letter of June 8, 2018 (Appendix F3 [Correspondence Related to Preliminary Section 4(f) Evaluation]), this would encourage and enhance conditions for wildlife movements across the Tucson Mitigation Corridor, <u>compared to the alternative of I-11 bisecting the TMC not adjacent to the CAP canal.</u>	
13	4.6.3.3	4-102		27-29	Reclamation	Reclamation requests the following edits to conform to our January 2, 2020 letter to FHWA.  Prior to making a Section 4(f) approval, project-level analysis in Tier 2 will include measures to <u>confirm maintenance and promotion of normal gene flow to the TMC and to</u> minimize harm and commitments that apply to <u>other</u> Section 4(f) properties in general (listed in Section 4.9).	
14	4.6.3.3	4-104		1-5	Reclamation	Reclamation requests the following edits.  ADOT will coordinate with AGFD and USFWS, as recognized wildlife authorities, on determining the studies required to understand east-west wildlife movement needs <u>and maintaining and promoting normal gene flow</u> (both on and off the Tucson Mitigation Corridor) between the Tucson Mountains and the Roskrige Mountains.	
15	4.6.3.3.	4-104		41-43	Reclamation	Reclamation requests the following edits.  This detailed coordination work was critical to identifying and resolving concerns regarding the ability of the Tucson Mitigation Corridor property to continue achieving its mission of enabling wildlife movements <u>and maintaining and promoting normal gene flow.</u>	
16	4.10.1	4-118	January 2, 2020		Reclamation	Reclamation requests the following information be incorporated into the Reclamation January 2, 2020 comments.	

#	Section	Page	Paragraph/ Bullet/ Figure	Line(s)	Reviewer	Comments	Disposition
						<ol style="list-style-type: none"> <li>1) The primary purpose of the TMC is to mitigate for the movement disruption impacts, not totally compensated for by the wildlife crossing structures over the aqueduct, by providing an undeveloped and long-term movement corridor for wildlife to maintain and promote normal gene flow while avoiding genetic isolation of the Tucson Mountains and wildlife habitat to the west.</li> <li>2) An important component of its evaluation is 16 U.S.C., section 663(d) of the FWCA, which describes the use of acquired properties and the prohibition against exchange or other transactions that would defeat the initial purpose of the acquisition.</li> <li>3) Reclamation states the TMC is a property of unique, or otherwise of special significance, due to its critical role as the primary movement corridor for SNP and TMP, both significant Section 4(f) properties.</li> <li>4) The continued maintenance and promotion of normal gene flow must be demonstrated as part of the Tier 2 evaluation.</li> </ol>	
17	4.10.2, 6.4.2.1	4-124, 6-20		27, 32-36	Reclamation	Based on subsequent project information Reclamation has conducted additional research on wildlife connectivity and gene flow, the Programmatic Net Benefit, and consulted with subject matter experts. This additional information resulted in a determination that a Net Benefit is not feasible or legally applicable to the Tucson Mitigation Corridor under the proposed project configurations.	
18	4.12	4-125		41	Reclamation	<p>Reclamation requests the following additional information be included after line 41.</p> <p>Reclamation will consult with the U.S. Fish and Wildlife Service on the Fish and Wildlife Coordination Act to determine compliance with 16 USC 663(d)).</p>	
19	6.4.2.1	6-20		38-40	Reclamation	<p>Reclamation requests the following edit.</p> <p>The Tucson Mitigation Corridor plays a critical role in <del>maintaining wildlife connectivity</del> <b><i>maintaining and promoting normal gene flow</i></b> between the isolated habitat block along the Tucson Mountains (SNP and TMP), Ironwood Forest National Monument, and Roskrige Mountains.</p>	



*Attachment 2 – Comments from FWS on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.*

**U.S. Fish and Wildlife Service (FWS), Arizona Ecological Services Office (AESO), additional comments on Federal Highways Administration (FHWA) and Arizona Department of Transportation's (ADOT) January 11, 2021. Preliminary Section 4(f) Evaluation for Interstate 11 (I-11) Administrative Final Tier 1 Environmental Impact Statement (EIS).**

As a cooperating agency on the I-11 project, we have reviewed two drafts of the I-11 Tier 1 EIS and Preliminary Section 4(f) Evaluation: the Administrative Draft (ADEIS) on August 17, 2018; and the Public Review Draft (PRDEIS) on August 30, 2019.

We also have reviewed the January 11, 2021, Administrative Final Tier 1 EIS (AFEIS) and provided comments on January 26, 2021. We acknowledged changes in the AFEIS that will reduce adverse impacts to biological resources and re-emphasized our concerns about the project's effects on particular listed and sensitive species. FHWA and ADOT intend to advance two options in Pima County to Tier 2: the West Option through the Avra Valley west of Tucson, with a new highway, and the East Option through Tucson, co-located with existing interstate highways. The previous draft EISs included only the West Option.

In past reviews, when the West Option (then Segment D of the Recommended Alternative) was the only alternative moving forward, FHWA and ADOT had not realistically addressed the alignment's potential effects to the Tucson Mitigation Corridor's (TMC) purpose and function and had not adequately considered the East Option. As a result, we focused less on the TMC's ecological significance and the high bar that would be set attempting to mitigate for its loss. Here, we briefly address those topics, but note that Reclamation's white paper (Bommarito 2020) addressed the same topics in detail.

Establishment and Importance of the Tucson Mitigation Corridor

The TMC is a wildlife movement corridor, created to offset the effects of the Central Arizona Project (CAP) aqueduct, completed in 1993. The TMC is not a wildlife overpass structure, or underpass, bridge, tunnel, or culvert. It is a property through which >two miles of the CAP aqueduct passes and periodically disappears into underground siphons. Siphons are located where natural drainages intersect the canal, allowing wildlife to cross the CAP in natural or nearly natural surroundings. The TMC is the primary wildlife movement corridor maintaining the connectivity and genetic integrity (gene flow) among wildlife populations in Avra Valley and the surrounding Roskrige and Tucson Mountains. As such, it is critical to wildlife populations in other 4(f) properties east and west of the TMC, including Tucson Mountain Park, Saguaro National Park, and Ironwood Forest National Monument. We agree with Bommarito (2020) and emphasize that preventing the mountains and mountain parks and monuments of western Pima County from becoming genetic islands is one of the TMC's most important functions.

We have long recognized the TMC's importance, in part because we have had statutory and regulatory authorities for the TMC since it first came under consideration by the U.S. Bureau of Reclamation (Reclamation) as a CAP mitigation property. In a February 14, 1985, letter to Reclamation about the mitigation plan for the proposed aqueduct, we stated:

*“Without acquisition of this corridor, we believe the mitigation plan [for the CAP] is grossly inadequate and would not come close to adequately addressing wildlife impacts [from the CAP].”*

Our December 19, 1988, letter to Pima County addressing an early proposal to construct an interstate highway bypass through Avra Valley (I-10 in this case) stated:

*“...the sole purpose of this land [the TMC] is for wildlife mitigation. Placement of a public road across it would seriously violate the integrity of this land and critically diminish its value for wildlife.”*

Reclamation established the TMC under the Fish and Wildlife Coordination Act (16 U.S.C. §§661-666c) (FWCA). The U.S. Department of Interior, FWS, and Department of Commerce, National Oceanic and Atmospheric Administration shares authority for FWCA implementation. Under this statute, Reclamation was required to consult with FWS when it created the mitigation corridor.

When Congress enacted the FWCA, the effects of all water developments on fish and wildlife, including the CAP aqueduct, came under its intent and oversight:

*Its [FWCA's] enactment pre-dates much of the current body of environmental law, including the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA)... The FWCA represents one of the earliest and most significant indications of the intent of Congress that fish and wildlife considerations were to be a major component of the analysis of projects affecting bodies of water and were to receive equal consideration with other traditional project purposes such as navigation and flood damage reduction (Bean 1984, Smalley and Mueller 2004).*

With section 663(d) of the FWCA, the TMC property itself came under the intent and oversight of the U.S. Congress. From 16 U.S.C. §§661-666c, section 663(d):

*“Properties acquired for the purposes of this section shall continue to be used for such purposes and shall not become the subject of exchange or other transactions if . . . [it] would defeat the initial purpose of their acquisition.”*

Reclamation operates the TMC under a 1989 Master Management Plan (MMP) and a 1990 Agreement with Pima County, Arizona Game and Fish Department (AGFD), and FWS. As the FWCA requires, the agreement and MMP both expressly prohibit development other than wildlife habitat improvements, or development agreed to by the signatories.

We have excerpted relevant provisions from Reclamation's 1989 MMP, Chapter II, Section 2 and Pima County, AGFD, and FWS's 1990 cooperative agreement:

## Reclamation's 1989 Master Management Plan

*“a. Prohibit any future developments within the area other than existing wildlife habitat improvements...or future wildlife improvements, management, or developments agreed to by Reclamation, Arizona Game and Fish Department (AGFD), Fish and Wildlife Service (FWS), and Pima County. This will preserve this fragile desert habitat from urbanization and maintain an open wildlife movement corridor.*

*b. Prohibit grazing, mining, dumping, discharge of firearms, trapping, recreation developments, and off-road vehicles to maintain the integrity of the area for both wildlife and special status plant species. Prohibited activities will be regulated according to Chapter 12 of the Parks and Recreation Commission, Pima County, under authority A.R.S. 11-931 et seq.”*

*“g. Maintain locked gates on perimeter of TMC to exclude unauthorized motor vehicles.*

*h. Enforce all laws and regulations set forth in this document, and by the State of Arizona, for the entire 2,730 acres, including the 216 acre CAP right-of-way.”*

## Pima County, AGFD, and FWS 1990 cooperative Agreement, Item 9

*“Title to these lands shall remain in the name of the United States. Failure to administer the lands for the conservation and management of plant and wildlife resources as identified in the Master Management Plan will result in the termination of agreements with Pima County and the transfer of management responsibilities back to Reclamation unless the departure is agreed upon by both parties and reflected in a modification of the Master Management Plan.”*

### Will the West Option Defeat the Purpose of the TMC?

The West Option through Avra Valley would defeat the purpose of the TMC, because Reclamation established the TMC and designed the siphons to provide multiple crossings for wildlife under relatively natural, undisturbed conditions. Aligning an interstate highway next to the CAP aqueduct represents a substantial alteration of those conditions, diminishing the purpose of the TMC. We can reasonably expect adverse effects to wildlife connectivity, gene flow, and populations from the West Option.

### Can ADOT and FHWA Mitigate Effects to the TMC?

FHWA and ADOT must address whether they can mitigate effects to the TMC during its Tier 2 evaluation. ADOT and FHWA must demonstrate, under Section 4(f): 1) that there are no feasible or prudent alternatives to using the TMC; and 2) that all possible planning has been included in the proposed action to minimize impacts.

Regarding the first part, our discussions with other DOI cooperating agencies suggest that a properly executed least harm analysis (also required by section 4(f)), may find that the East

Option's local effects on 4(f) properties in Tucson are lower than the regional effects of aligning I-11 through the TMC. Given that outcome, the East Option would clearly be the preferred I-11 alignment under the 4(f) statute.

With respect to the second part, FHWA and ADOT have outlined in the AFEIS an ambitious program of field study and mitigation to offset effects of I-11 on wildlife connectivity from the towns of Nogales to Wickenburg. Inside the TMC, ADOT would include wildlife overpasses or underpasses along I-11 in the same locations as the siphons built into the CAP aqueduct when it was constructed. As outlined, and if implemented, the proposed actions may help to alleviate long-standing wildlife movement problems that have increased over decades of growth and urbanization in southern Arizona, particularly near the Tucson Mountains. On the other hand, if the least harm analysis provides no clear choice between the East and West Options, and project proponents choose the West Option, the two-mile wide natural movement corridor that is the essential feature of the TMC will be lost. Whether FHWA and ADOT can effectively offset that loss with a series of wildlife overpasses and underpasses in Avra Valley is an open question and dependent on what is determined to be a final mitigation package.

#### Literature Cited

- Bean, M.J. 1983. The evolution of national wildlife law, revised and expanded edition. Prager Publishing Co., New York, N.Y.
- Bommarito, T.A. 2020. Additional Reclamation comments for an Individual 4(f) Evaluation for the TMC [Tucson Mitigation Corridor]. U.S. Bureau of Reclamation, Phoenix, Arizona.
- Smalley, D.H., and A.J. Mueller. 2004. Water resources development under the Fish and Wildlife Coordination Act. U.S. Fish and Wildlife Service, Arlington, Virginia, and Conway, Arkansas.

**Attachment 3 - Comments from Reclamation on the Administrative Final Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation for Interstate 11 Corridor between Nogales and Wickenburg, Arizona.**

#	Chapter/ Section	Page/ Table	Title/ Topic	Line(s)	Reviewer	Comments	Disposition
1	4.5.1	4-21	Table 4-1	Property #64	NPS	The features and Attributes column reads: "25,000 acres for Saguaro NP West, historic and nature resource preservation, recreation (not a historic property)." Please edit to reflect The Tucson Mountain Park Historic District (including most of Saguaro National Park and Wilderness, as well as the Tucson Mountain Park) as eligible for listing on the on the National Register of Historic Places, with a signed copy by the SHPO of the NR Nomination Form accessible to agencies involved.	
2	4.5.2	p. 4-38	Table 4-2. Historic Sites in the Corridor Study Area		NPS	Please add the Property 64 from Table 4-1 to Table 4-2 and reference the National Register Nomination Form for specific features and attributes of The Tucson Mountain Park Historic District. The district is a "designed park landscape of 28,708 contiguous acres on the western slopes of the Tucson Mountains in Pima County, Arizona," including both county and federal park lands linked to the early conservation efforts in Pima County and in cooperation with the National Park Service.  The period of significance is 1921-1941, and the National Register Form, Pg. 41, Section 8. Narrative Statement of Significance states that: "Because the Tucson Mountain Park Historic District encompasses an area that has had a protected status since its designation as a county park in 1932, the district as a whole and most of its individual buildings, structures, and landscape elements retain a high degree of integrity." The NPS requests that the FEIS acknowledge the effects to the Historic District, including to the impacts to cultural and historic sounds that are "fundamental components of the purposes and values for which the parks were established..." (NPS Management Policies 2006).	
3	4.6.3.3	p. 4-103		19-21	NPS	In Tier 2 analysis, please analyze if the reduction in the facility's width would result in a change to the modeled Peak Travel times: with the currently modeled time differences between the two alternatives, stakeholders and decision-makers would benefit from knowing if this travel time difference is decreased further.	
4	4.6.4.2	p.4-106 to p-108	Constructive Use, Regulatory Context, and SNP Noise Impact Assessment		NPS IMR-NR	23 CFR 774.15(e) notes that constructive use can occur when a project substantially interferes with enjoyment of a historic site where a quiet setting is generally recognized feature or attribute. We recommend FHWA recognize that Saguaro National Park and the Saguaro Wilderness Area (designated in 1976) meet the land use criteria of 23 CFR 774.15 given the presence of the Tucson Mountain Park Historic District, the Saguaro Wilderness Area, and Congress' stated intent to protect opportunities for solitude within the wilderness areas of Saguaro National Park (Public Law 103-364). Furthermore, it is clear that a quiet setting is required to achieve the recognized wilderness quality of solitude. Because there are no low noise, long term baseline measurements in the vicinity, it is unknown if increases in noise levels from the I-11 project would exceed applicable ADOT/FHWA noise abatement thresholds.  There has not been any recent long term acoustic ambient measurements using low noise Type 1 Sound Level Meter (SLM) in the SNP Tucson Mountain District. We respectfully request that	

						ADOT/FHWA incorporate new Type 1 SLM data that NPS is collecting into the Tier 2 EIS analysis, including constructive use and noise abatement determinations.	
5	Appendix F	3	Saguaro National Park	13-18	NPS	<p>The National Park Service disagrees with the classification Saguaro National Park as a “<i>park and recreational resource</i>”: based on the Congressional legislation summarized below, FHWA should consider recognizing National Parks as 4(f) properties independent of additional categorization or use (Department of Interior 2014 <i>Handbook on Departmental Review of Section 4(f) Evaluations</i>).</p> <p>The most important statutory directive for the National Park Service is provided by interrelated provisions of the NPS Organic Act of 1916 and the NPS General Authorities Act of 1970, including amendments to the latter law enacted in 1978.</p> <p>The key management-related provision of the Organic Act is as follows:</p> <p style="padding-left: 40px;">[The National Park Service] shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified ... by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. (16 USC 1)</p> <p>Congress supplemented and clarified these provisions through enactment of the General Authorities Act in 1970, and again through enactment of a 1978 amendment to that act (the “Redwood amendment,” contained in a bill expanding Redwood National Park), which added the last two sentences in the following provision. The key part of that act, as amended, is as follows:</p> <p style="padding-left: 40px;">Congress declares that the national park system, which began with establishment of Yellowstone National Park in 1872, has since grown to include superlative natural, historic, and recreation areas in every major region of the United States, its territories and island possessions; that these areas, though distinct in character, are united through their inter-related purposes and resources into one national park system as cumulative expressions of a single national heritage; that, individually and collectively, these areas derive increased national dignity and recognition of their superlative environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all the people of the United States; and that it is the purpose of this Act to include all such areas in the System and to clarify the authorities applicable to the system. Congress further reaffirms, declares, and directs that the promotion and regulation of the various areas of the National Park System, as defined in section 1c of this title, shall be consistent with and founded in the purpose established by section 1 of this title [the Organic Act provision quoted above], to the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which</p>	



						these various areas have been established, except as may have been or shall be directly and specifically provided by Congress. (16 USC 1a-1).	
6	Additional Comment				NPS	<p>Since the last comment period, a new 28,708 Historic District has been nominated to the National Register of Historic Places. This district is directly adjacent to the western alignment of I-11, and roughly encompasses the original footprint of Tucson Mountain Park, now managed by the National Park Service and Pima County. The Historic District spans the Tucson Mountains, including sections of Saguaro National Park and Tucson Mountain Park. At the closest point, the western Preferred Alternative is 200 feet from the Historic District. As stated in the nomination, “[t]he creation of the park was seen as a way to preserve a large tract of undeveloped wilderness just outside the city” and to designate a “county wildlife refuge.”</p> <p>Thank you for including this Historic District in the Final EIS and for further analysis in Tier II for potential impacts to cultural resources and Section 4(f) properties. This new designation was provided in the table included in Reclamation’s letter submitted on January 2, 2020, but DOI has not previously provided a description of this new Historic District.</p>	