

ARIZONA DEPARTMENT OF TRANSPORTATION

Environmental Planning
1611 West Jackson Street, Mail Drop EM02
Phoenix, Arizona 85007

Environmental Assessment Re-Evaluation

For

US 93, Carrow to Stephens

NH 093-B(205)N

093 MO 115 H8232 01C

Approved by:  Date: 3/16/2018
DocuSigned by: 6780E98BC3EB4EE...
PAUL O'BRIEN, P.E.
Administrator
ADOT Environmental Planning

Approved by:  Date: 3/19/2018
DocuSigned by: 9E759FCB1E5C4BA...
KARLA S. PETTY
Arizona Division Administrator
Federal Highway Administration

This Environmental Assessment Reevaluation has been prepared in accordance with provisions and requirements of Chapter 1, Title 23 USC and 23 CFR §771.129(c) relating to the implementation of the National Environmental Policy Act of 1969; and 23 CFR 774 relating to Section 4(f) of the Department of Transportation Act of 1966.

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BACKGROUND

In March 2001, the Arizona Department of Transportation (ADOT) completed the Final Environmental Assessment (EA) for a corridor study on US Highway 93 (US 93) from Wikieup to Interstate 40 (I-40) in Mohave County, Arizona (STP-035-1[]; 93 MO 91 H4423 01D). The Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI); STP-035-1(803) on March 4, 2001. Then in July 2001, the final Location/Design Concept Report (L/DCR) was approved by ADOT. Both the EA and L/DCR subdivided the US 93 corridor into four Study Zones (i.e. A-D) in order to systematically describe and analyze the corridor and design concept alternatives. The L/DCR further subdivided the US 93 corridor in an Implementation Plan which outlined priorities and prioritized construction of the corridor into 19 Segments that were consistent with available funding. Segments of the US 93 improvements have been subsequently evaluated for compliance with the National Environmental Policy Act (NEPA) as unique projects during their final design.

PROJECT DESCRIPTION

This project is located within Study Zone B Segment 9 (Figure 1). The project would link two previously completed US 93 improvement projects; the southbound (SB) Deluge Wash project (H7438) which was completed in 2012 and is located north of the proposed project; and the Tompkins Canyon project (H6176) which was completed in 2008 and is located south of the proposed project. The purpose of this project is to improve overall traffic operations of US 93 by increasing the roadway traffic capacity through the construction of additional lanes and re-aligning the roadway away from environmentally sensitive areas.

The project is located along and within the immediate vicinity of US 93 between milepost (MP) 116.10 and MP 119.50 for the construction limits. However, the project limits extend along US 93 between MP 114.95 to MP 120.60 for traffic control. The project is located approximately 6-miles north of Wikieup, in Mohave County, Arizona (Figures 2 and 3). This EA re-evaluation is focused on design and project considerations not previously assessed for Segment 9, resulting in the need for additional analysis. The revised design and project considerations are as follows:

- Constructing a divided four-lane highway including slope cuts predominantly along a new alignment
- Removing the existing bridge and constructing two new bridges over Gunsight Canyon at MP 118.00
- Installing scour protection slabs with cutoff walls and bank protection at the two new bridges
- Constructing cross roads for private, business, and Bureau of Land Management (BLM) properties adjacent to new divided highway
- Constructing temporary detour roads that will be removed once construction is completed

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- Installing bank protection along Big Sandy River
- Installing guardrail and guardrail end treatments, as necessary
- Installing, removing, and replacing traffic signs, including temporary advance warning signs during construction
- Constructing culverts including pipe culverts, corrugated metal pipes (CMP), concrete box culverts (CBC) and reinforced concrete box culverts (RCBC) with riprap aprons or riprap stilling basin/energy dissipators, as necessary
- Install some CBCs with light wells
- Converting portions of the existing US 93 into a frontage/private roadway that will be milled and resurfaced
- Removing portions of the existing US 93 that will not be part of the frontage/private roadway
- Striping/restriping both the new highway and old roadway
- Constructing median catch basins and drainage ditches, as necessary
- Relocating utilities, as necessary
- Designing the roadway for future traffic interchanges at approximately MP 118.50 and MP 116.50
- Utilizing excess backfill material that is excavated from the Big Sandy River during project activities for Cement Stabilized Alluvium (CSA) bank protection
- Installing CSA along portions of the Big Sandy River and Gunsight Canyon
- Salvaging plants within the project limits to be replanted as part of seeding/landscaping efforts
- Seeding disturbed areas with plant species native to the project vicinity

The project is anticipated to begin construction in fall 2018. Construction-related impacts would include vehicles slowing through the project limits due to adjacent work being completed on the shoulders and roadway. It is anticipated that one lane of traffic will remain open in each travel direction throughout the construction duration on either the existing US 93 or through detours onto the portions of the new highway. Access to adjacent properties will be maintained throughout construction; however, short closures may be required during construction of access/cross roads and removing portions of old US 93. Motorist and property owners will be provided notices prior to any closures.

This EA Re-Evaluation summarizes any additional environmental impacts resulting from design modifications, and is submitted for FHWA approval.

ENVIRONMENTAL CONSIDERATIONS

Each resource or environmental consideration analyzed in the EA has been reevaluated to determine whether the planned modifications to Segment 9 would have environmental impacts not presented in the original analyses and whether previously identified impacts would be greater than those presented in the original EA. Supplemental environmental studies included:

- Land use evaluation for the new right-of-way (ROW), easement and temporary construction easement (TCE) requirements.
- Update the air quality review per new Environmental Protection Agency (EPA) regulations.
- Confirm noise impacts per new ADOT standards.
- Cultural resources testing and data recovery pursuant to Section 106 of the National Historic Preservation Act (NHPA) and in accordance with the Programmatic Agreement (PA) and *Historic Properties Treatment Plan for Cultural Resources within the U.S. 93 Carrow to Stephens Design Segment, Milepost 116.08 to 119.42, Mohave County, Arizona* (Gage and Craig 2016).

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- Survey, sampling and testing for asbestos containing materials (ACM) associated with the demolition of a bridge, CBC, RCBC, culvert headwalls, and the concrete in the cattle guards.
- Lead-based paint (LBP) and ACM sampling and testing for roadway striping on US 93; and LBP sampling from the cattle guards and drainage grates.
- Confirmation of avoidance of Section 4(f) properties.
- Completing a new Biological Evaluation (BE) to determine impacts to any threatened, endangered, proposed, or candidate species.
- Ensuring the project meets BLM's visual quality objectives.
- Section 404 Individual Permit for impacts to waters of the US.

ENVIRONMENTAL CONSIDERATIONS AND RESOURCES REQUIRING NO FURTHER ANALYSIS

The following resources were addressed in the original EA and impacts due to the design modifications will not affect the previous determinations made within these disciplines. Therefore the following areas did not require further review:

- Socioeconomic impacts
- Title 6/Environmental Justice
- Earth/Mineral Resources
- Pedestrian and Bicycles
- Secondary and cumulative impacts

Land Use

The project would occur within and adjacent to existing ADOT ROW through private lands, and easement through BLM lands. A substantial amount of new ROW and easement acquisition for this project is necessary due to the realignment of approximately 2.6 miles the US 93 through the project limits. The majority of new ROW and TCE for all segments of the US 93 Improvements were acquired when the original EA was prepared. During that time 130.10 acres of private land and 123.90 acres of easement from BLM were acquired specific to this project. In 2002, ADOT began obtaining privately owned properties required for the improvements to the entire US 93 corridor from Wikieup to I-40 in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. During the final design of the project, an additional 2.44 acres of new ROW and 1.96 acres of TCE from private land owners, and 36.92 acres of new easement and 0.83 acre of TCE from BLM were identified for acquisition. ADOT is currently in the process of acquiring this property and completing the easement agreement with BLM.

According to the Mohave County's 2015 General Plan, the project is located within "public lands" which is defined as lands in rural areas that is owned by a public agency, but is not primarily devoted to parks and recreational use (Mohave County 2015). Within the project limits, lands under the jurisdiction of BLM are not currently used for recreation and are primarily used for cattle grazing. The project area is part of the Big Sandy grazing allotment which covers approximately 90,000 acres, and there are two main ranchers that lease the allotment land from the BLM to supplement their grazing from their private ranches (Data Basin 2017). Private lands within the project area are used for residential, commercial, and ranching purposes. Due to the projects ROW acquisitions, a portion of lands currently available for grazing, recreation, and future private development would no longer be available. However, access to existing private parcels adjacent to the project limits would be maintained. Overall, the impacts from easement acquisition on public lands would be minimal due to the large expanse of public lands in vicinity. Additionally, the design of the proposed project incorporated appropriately sized culverts to be used for access for grazing allotments that span the US 93 roadway.

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Environmental Commitment:

Design Responsibilities

- The Arizona Department of Transportation will perform any right-of-way acquisition in accordance with 49 CFR §24 and The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Air Quality

The project is located within an attainment area for Arizona. Some deterioration of air quality would be expected during operation of construction equipment and due to slower traffic speeds within the construction zone. However, this would be a localized condition that will be discontinued when construction is complete. Additionally, fugitive dust generation from construction would be controlled in accordance with the *Arizona Department of Transportation Standard Specification for Road and Bridge Construction*, Section 104.08 (2008 Edition), special provisions and local rules and ordinances.

This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special Mobile Source Air Toxics (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the No Build Alternative. It is therefore concluded the proposed action would have no meaningful potential MSAT impacts.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's Motor Vehicle Emission Simulator (MOVES) model forecasts a combined reduction of over 90 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Noise

Noise impacts were considered in the original 2001 EA due to traffic moving closer to sensitive receptors in the Wikieup area. Sensitive receptors were expected to experience increased noise levels with either the 'preferred alternative' or 'No build' alternative. Receptors not in the downtown Wikieup area are considered 'isolated' and would not be eligible for noise mitigation due to costs over the limit for individual units, and visual intrusion in the open desert. Noise abatement was not recommended in the 2001 EA due to cost of abatement exceeding the allowable limit per residence. The current project is approximately five miles north of Wikieup and has only isolated receptors.

For the current EA Reevaluation, the project was reviewed from milepost 114.95 to milepost 120.60 for new impacts that may have arisen since the original EA or those not originally considered. To comply with ADOT Noise Abatement Requirements, noise screening was focused on design and project consideration that may have not been previously assessed such as horizontal and eventual vertical changes that may expose noise sensitive areas directly to traffic and construction noise.

Screening shows potential reductions in traffic noise levels at noise sensitive receivers, comparing future 'build' and future 'no build' noise levels. No impacts were identified related to the current project.

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Environmental Commitment:

Contractor Responsibility

- The contractor shall comply with all local air quality and dust control rules, regulations and ordinances which apply to any work performed pursuant to the contract.

Cultural Resources

A literature review and field surveys were conducted as part of the original EA. A 1,000 foot wide corridor was field surveyed as part of the 2000 EA. The results of these efforts were that the preferred alternative would have an 'adverse effect' upon cultural resources (EA, 34). Had there been design changes that arose during the current project design (i.e. new ROW or TCE's) that required additional survey, the archaeological consultant would have been tasked to complete those survey(s).

Subsequently, a Programmatic Agreement (PA) was developed to address adverse effects to cultural resources for the US 93 project area identified in the initial EA between Wikieup (MP 127.0) and Interstate 40 (I-40). The PA specified that it will identify historic properties 'to be affected by the Project as a whole' from Wikieup to I-40. The PA was submitted to consulting parties and appropriate federal agencies as specified in 36 CFR §800.6(a). Signatures were received from FHWA, ADOT, State Historic Preservation Office (SHPO), BLM, U.S. Army of Corps Engineers (Corps), Arizona State Museum (ASM), and the Hopi Indian Tribe.

A Historic Properties Treatment Plan (HPTP) was more recently developed for the project (*Historic Properties Treatment Plan for Cultural Resources Within the US 93 Carrow to Stephens Design Segment, Mileposts 116.08 to 119.42 Mohave County, Arizona* April 6, 2016) to document how the adverse effects would be mitigated. The plan was consulted on in 2016 with SHPO, BLM, Corps, ASM and the Hopi Indian Tribe. Concurrence was received from SHPO. No other responses were received.

Within the area of potential effects (APE) for the proposed project, there are eight cultural resource sites that were evaluated for potential adverse effects. The sites consist of one prehistoric artifact scatter; three historic trash scatters; one historic dump; one historic school and teacher's residence; and two historic ranches including the extensive Carrow-Stephens Ranch complex. All eight sites will be researched as part of the HPTP, but only six will be directly impacted by the proposed project and subjected to data recovery investigations prior to any construction activities within the APE. Because there is no construction activity planned on the historic school and teacher's residence and the Carrow-Stephens Ranch complex, re-assessment and re-mapping will not be required at those sites.

The HPTP was prepared before the final design plans were fully developed for the project. As recent plan submittals indicate, the project will remove existing pavement and place pulverized pavement on the existing US 93 in the area adjacent to the Carrow-Stephens Ranch complex (located from milepost 117.5 to milepost 117.9). The east side of the road prism will be flagged prior to construction by a qualified archaeologist so the contractor will avoid impacts to the ranch site. In the area of the historical school and teacher's residence (the present location of Luchias Restaurant), construction activities avoid the site.

Construction will not be able to start until all the research and data recovery has been completed by NRI. The environmental commitments have been updated from the EA to reflect the current ADOT guidelines and commonly used mitigation measures.

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Environmental Commitments:

Northwest District Responsibilities

- The Engineer will comply with all provisions identified in the attached executed Programmatic Agreement, entitled *Programmatic Agreement among Federal Highway Administration, Arizona Department of Transportation, U.S. Bureau of Land Management, Arizona State Land Department, Arizona State Museum, Hualapai Tribe, Hopi Tribe, Yavapai-Prescott Indian Tribe, Ft. Mojave Indian Tribe, Yavapai-Apache Nation, Colorado River Indian Tribes, U.S. Army Corps of Engineers, Arizona State Historic Preservation Officer, and Advisory Council on Historic Preservation, Regarding the Historic Properties along United States Route 93 between Wikieup and I-40, Mohave County, Arizona.*
- The Engineer will contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team (602.712.8636 or 602.712.7767) 14 days prior to construction to ensure that the terms and stipulations of the Programmatic Agreement have been fulfilled.
- No work will occur within the project limits until the Arizona Department of Transportation Environmental Planning Historic Preservation Team informs the Engineer that testing/data recovery has been completed in accordance with the terms and stipulations of the executed Programmatic Agreement.
- The Engineer will contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team at 602.712.2343 or 602.712.7767 to schedule the partnering meeting or preconstruction meeting to ensure a qualified Environmental Planning representative will be available to attend the meeting.

Contractor Responsibilities

- The contractor shall comply with all provisions identified in the attached executed Programmatic Agreement, entitled *Programmatic Agreement among Federal Highway Administration, Arizona Department of Transportation, US Bureau of Land Management, Arizona State Land Department, Arizona State Museum, Hualapai Tribe, Hopi Tribe, Yavapai-Prescott Indian Tribe, Ft. Mojave Indian Tribe, Yavapai-Apache Nation, Colorado River Indian Tribes, U.S. Army Corps of Engineers, Arizona State Historic Preservation Officer, and Advisory Council on Historic Preservation, Regarding the Historic Properties along United States Route 93 between Wikieup and I-40, Mohave County, Arizona.*
- No work shall occur until the Engineer informs the contractor that work may commence.
- No project activities shall occur along the east side of US 93 between milepost 117.5 and milepost 117.9 until the avoidance area has been flagged by a qualified archaeologist.
- The contractor shall contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team (602.712.2343 or 602.712.7767) at least 15 (fifteen) business days prior to the start of construction activities within the avoidance areas to arrange for flagging by a qualified archaeologist.

Hazardous Materials

An updated records check of Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ) databases was conducted and a Preliminary Initial Site Assessment (PISA) was approved by ADOT on August 9, 2013 and reapproved on December 28, 2017. No hazardous materials concerns were identified by the records search.

Several structures were identified within the project area that had the potential to contain LBP and/or ACM. Therefore, sampling was necessary to determine the presence of LBP and ACM. The following list of structures were sampled on October 9, 2013 and tested:

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- Northbound (NB) and SB cattle guard at MP 116.65
- RCB at MP 116.7
- ADOT Structure #4963, RBC at MP 117.23
- RBC at MP 117.68
- ADOT Structure #4964, RBC at MP 118.00 (Gunsight Canyon)
- RBC at MP 118.48
- RBC at MP 118.50
- RBC at MP 118.75
- Concrete pipe at MP 119.12
- Concrete pipe at MP 119.16
- Concrete pipe at MP 119.18
- RBC at MP 119.24

No ACM was detected on any of the structures. All structures that will be demolished and/or renovated are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and will be required to adhere to appropriate notification and work practices.

Paint chip samples were collected from the roadway striping along US 93 for LBP on October 9, 2013 and subsequently re-tested for asbestos content to comply with updated requirements on December 14, 2017. No LBP was detected on any of the samples taken. Below are the updated hazardous material environmental commitments.

Environmental Commitments:

Northwest District Responsibilities

- The contractor cannot start work associated with work on the reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964) until 10 (ten) working days have passed since the submittal of the National Emission Standard for Hazardous Air Pollutants notification to the regulatory agencies.
- The Engineer, in association with the contractor, will complete the National Emission Standard for Hazardous Air Pollutants documentation and submit it to the Arizona Department of Transportation Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for review 5 (five) working days prior to being submitted to regulatory agencies.

Contractor Responsibilities

- The contractor shall complete a National Emissions Standards for Hazardous Air Pollutants notification for work associated with work on the reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964) and submit it to the Engineer for review.
- After Engineer approval, the notification shall be submitted to the Arizona Department of Transportation Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for a 5 (five) working-day review and approval. Upon approval by the Arizona Department of Transportation Environmental Planning hazardous materials coordinator, the contractor shall file the notification with the Arizona Department of Environmental Quality at least 10 (ten) working days prior to demolition/renovation associated with work on the reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964).
- The contractor cannot start work associated with work occurring on reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964) until 10 (ten) working days have passed since the submittal of the National Emissions Standard for Hazardous Air Pollutants notification to the regulatory agency.

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Section 4(f) Resources

One facility that qualifies for Section 4(f) protection for its historical value is located within the project limits:

1. Carrow-Stephens Ranch – a historic site that is eligible for the National Register of Historic Places under Criterion A (event).

The EA previously evaluated this property for Section 4(f) impacts and it was determined that the implementation of the preferred alternative would have no “use” of the Ranch because it would relocate US 93 approximately 0.25 mile further from the ranch than the existing alignment. As stated in the EA, ‘direct and proximity impacts to this site would be avoided by the preferred alternative’ (EA, 35). The new US 93 alignment, as part of the current project, still avoids the Ranch by approximately 0.15 mile to the west (see Figure 4).

Access to the Ranch will be maintained through a new turn out and portions of the old alignment of US 93 that will become a frontage road. Because it is being avoided, no portion of this property will be permanently incorporated into a transportation facility as a result of the project. Access to the property may be temporarily impacted during construction; however, the property is not open to the public and coordination between the contractor and BLM will occur to confirm access is available when desired. The public currently has no access, so they will not be affected.

Finally, there is no constructive use for the property; it is not a noise sensitive facility; and changes to the landscape resulting from the realignment of US 93 would not result in adverse proximity impacts to the Ranch by affecting the aesthetic value of the surrounding area.

Environmental Commitments:

Contractor Responsibilities

- Access to the Carrow-Stephens Ranch will be coordinated with the Bureau of Land Management to accommodate entry to the ranch.
- No project activities shall occur along the east side of US 93 between milepost 117.5 and milepost 117.9 until the avoidance area has been flagged by a qualified archaeologist.
- The contractor shall contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team (602.712.2343 or 602.712.7767) at least 15 (fifteen) business days prior to the start of construction activities within the avoidance areas to arrange for flagging by a qualified archaeologist.

Biological Resources

A Biological Evaluation has been prepared to evaluate potential impacts from the proposed activities to biological resources in the project area. The US Fish and Wildlife Service (USFWS) Information, Planning, and Conservation system was accessed on September 11, 2017 to identify species federally listed under the Endangered Species Act (ESA). The BE determined that the proposed project would have no effect to species federally listed under the ESA and no formal or informal Section 7 consultation with the USFWS is required for this project. However, the project may impact individuals of Sonoran desert tortoise (*Gopherus morafkai*), but is not likely to result in a trend toward federal listing or loss of viability. This project will incorporate measures in order to minimize impacts to Sonoran desert tortoise.

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The Arizona Game and Fish Department (AGFD) On-line Environmental Review tool was accessed on June 27, 2017 to determine special status species known to occur in the project vicinity (Search ID: HGIS-04787). The AGFD online environmental review tool identified the Sonoran desert tortoise, banded Gila monster (*Heloderma suspectum cinctum*), lowland leopard frog (*Rana yavapaiensis*), golden eagle (*Aquila chrysaetos*), and a bat colony as occurring within three miles of the project vicinity. As previously mentioned, the project may impact individuals of Sonoran desert tortoise, but is not likely to result in a trend towards federal listing or a loss of viability; and measures will be implemented to minimize impacts. It was also determined the project may impact individuals of banded Gila monster and lowland leopard frog, but is not likely to result in a trend towards federal listing or loss of viability. This project will have no impact on golden eagle or a bat colony.

A site visit was conducted on October 9, 2013 which included inspecting existing structures and culverts within the project limits for evidence of past or present use by bats. Substantial urine staining and guano was observed within several culverts throughout the project limits; however, no bats were observed using the culverts as a day roost. In addition, there are no existing bridges that would support a colony of bats within the project limits and the culverts are small in size and do not have cracks or crevices that would support a roosting colony of bats. Therefore, it is probable that bats are utilizing the culverts walls as night roosts during foraging activities. Night work is anticipated for this project. If culverts are removed during night time hours and bats are present during demolition, the project may impact individual bats, but is not likely to result in a trend toward federal listing or loss of viability.

During the same October 2013 site visit, existing structures and culverts were also checked for evidence of nesting migratory birds such as cliff swallows. Evidence of nesting cliff swallows was observed in several culverts within the project limits. In addition, bird nests were observed in trees scoped for removal within the project limits. If nesting birds protected by the Migratory Bird Treaty Act are present on structures or in vegetation planned for removal, they would be impacted. Thus, to avoid impacts to nesting migratory birds including swallows, the measures will be implemented.

As part of the environmental review process, a letter describing the project activities was sent to the BLM and AGFD to inform them of the project and to solicit comments. A response letter was received from the BLM on October 19, 2016 and did not contain any biologically specific concerns. The AGFD provided a response letter on March 2, 2017 requesting a meeting to discuss drainage design to accommodate wildlife movement and wildlife connectivity. Two meetings were held to discuss roadway designs which improve wildlife movement and wildlife connectivity within the project limits. The meetings were attended by representatives from ADOT, AGFD, BLM, Amec Foster Wheeler, Jacobs Engineering, and AZTEC Engineering. The first meeting was held on July 9, 2013 as part of the preliminary design for the project (project went on hold for three years after this meeting) and included discussions regarding the history of road kills in the project vicinity, and the need to conduct wildlife studies in the vicinity of the project limits. In addition, design changes to bridge plans and location; culvert plans and location; and wildlife fencing to reduce impacts to wildlife were also discussed. The second wildlife connectivity meeting was held on March 24, 2017. Focus items during the meeting included modifications to Gunsight Canyon Bridge, concrete box culverts, fencing, and inlet/outlet protection to improve wildlife movement. Additionally, representatives from AGFD, ADOT and AZTEC Engineering conducted a field visit on April 10, 2017 to evaluate proposed culvert locations for suitability as wildlife crossing. Of the ten culvert locations that were proposed, only five were determined suitable for enhancing wildlife movement. As a result of the two meetings and the field visit, the design team modified the project plans to incorporate recommendations provided by AGFD. Modifications were made to the proposed design of the five identified culverts including reduction of culvert length, grouted pathways through the outlet riprap, and addition of light wells to increase visibility in the culverts.

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Plants protected under the Arizona Native Plant Law such as mesquite, palo verde, ironwood, ocotillo and succulents were observed scattered throughout the project area during the October 2013 site visit. In addition, the EA completed for the entire US 93 corridor included specific mitigation pertaining to the removal of Salvage Restricted native plants. Therefore, this project will incorporate measures in order to reduce impacts to protected native plants.

This project was reviewed by the ADOT Natural Resources section in order to identify areas infested with invasive species. It was determined that Malta starthistle (*Centaurea melitensis*) was located between MP 117.8-117.9 and MP 118.7-118.8; and buffelgrass (*Pennisetum ciliare*) was located at MP 119.8. This project will incorporate the measures in order to prevent the introduction and spread of invasive species.

Detailed description of the biological analysis can be found in the December 18, 2017 approved BE. BLM approved the BE on December 28, 2017 (attached transmittal letter). Below are the updated biological commitments.

Environmental Commitments:

Design Responsibility

- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity.

ADOT Roadside Development Responsibilities

- The Arizona Department of Transportation Roadside Development Section will provide special provisions for the control of noxious and invasive species during construction that may require treatment and control within the project limits.
- Protected native plants within the project limits will be impacted by this project; therefore, the Arizona Department of Transportation Roadside Development Section will determine if Arizona Department of Agriculture notification is needed. If notification is needed, the Arizona Department of Transportation Roadside Development Section will send the notification at least 60 (sixty) calendar days prior to the start of construction.

Northwest District Responsibilities

- Prior to construction activity the contractor's field personnel including the Project Manager, Assistant Project Manager, General Superintendent, and Project Superintendent shall review the attached Arizona Department of Transportation Environmental Planning "Sonoran Desert Tortoise Awareness Program Handout" flier revised March 2017, become familiar with the identification and avoidance of the Sonoran Desert Tortoise, and follow the notification request, as applicable.
- If any active bird nests cannot be avoided by vegetation clearing or construction activities, the Engineer will contact the ADOT Environmental Planning Biologist (602.712.6819 or 602.622.9622) to evaluate the situation.

Contractor Responsibilities

- The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the State and Federal Noxious Weed and the State Invasive Species list in accordance with State and Federal Laws and Executive Orders. The plan and associated treatments shall include all areas within the project right of way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the Arizona Department of Transportation Construction Professional Landscape Architect for review and approval prior to implementation by the contractor.

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Contractor Responsibilities (continued)

- Prior to the start of ground-disturbing activities and throughout the entire duration of the contract, the contractor shall arrange for and perform the control of noxious and invasive species in the project area.
- To prevent the introduction of invasive species seeds, the contractor shall inspect all earthmoving and hauling equipment at the storage facility. All vehicles and equipment shall be washed and free of all attached plant/vegetation and soil/mud debris prior to entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.
- Prior to construction activity the contractor's field personnel including the Project Manager, Assistant Project Manager, General Superintendent, and Project Superintendent shall review the attached Arizona Department of Transportation Environmental Planning "Sonoran Desert Tortoise Awareness Program Handout" flier revised March 2017, become familiar with the identification and avoidance of the Sonoran Desert Tortoise, and follow the notification request, as applicable.
- The contractor shall report encounters with any Sonoran Desert tortoises (live, injured, or dead) during construction to the Engineer using the attached Arizona Department of Transportation Sonoran Desert Tortoise Observation Form. The final form shall be sent to Arizona Department of Transportation Environmental Planning (email jfife@azdot.gov) within 24 hours of the encounter. Photographs should be taken of tortoises encountered, and included in the report if possible.
- If any Sonoran Desert tortoises are encountered during construction, the contractor shall adhere to the attached Arizona Game and Fish Department "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" revised September 22, 2014. If any tortoise is encountered during construction the contractor shall notify the Engineer to report the encounter.
- All viable cacti, Yucca species, and Nolina species, as identified during final design by ADOT/BLM are Salvage Restricted native plants which shall be avoided by the construction contractor. If such plants cannot be avoided by construction, the contractor shall arrange for these plants to be transplanted within the project limits.
- If vegetation clearing will occur during the migratory breeding season (March 1 – August 31), the contractor shall avoid any active nests. If the active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During non-breeding season (September 1 – February 28) vegetation removal is not subject to this restriction.
- The contractor shall not cause injury or death to swallows, including eggs and nestlings, and shall avoid work within 100 feet of nesting swallows from February 1 to August 30 of any calendar year. If work will occur within 100 feet of nesting swallows between February 1 and August 30, the contractor shall adhere to the following:
 - The contractor shall completely remove all existing swallow nests within 100 feet of work areas after August 30 but prior to February 1 to prevent swallows from reusing those nests.
 - The contractor shall implement exclusionary measures to prevent birds from building new nests within 100 feet of work areas. Exclusionary measures shall be implemented in all areas where birds are likely to nest, and may include (a) continually removing nesting materials during early nest construction when eggs or nestlings are not present, (b) installing exclusionary netting (wire or plastic mesh 0.75 inch or less in diameter), (c) installing deterrent spike strips, and/or (d) installing polytetrafluoroethylene (Teflon) sheeting.
 - The contractor shall not disturb any active swallow nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered within 100 feet of construction activities, work shall stop and the Arizona Department of Transportation

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Environmental Planning biologist shall be contacted (602.712.6819 or 602.622.9622) to evaluate the potential for disturbance of nests.

- The contractor shall monitor and maintain the effectiveness of exclusionary measures daily. Netting shall be maintained such that it remains in place without any loose areas or openings that could trap and/or entangle birds. Spike strips shall be maintained such that they remain in place. Teflon sheeting shall be reapplied as often as necessary to remain effective.
- The contractor shall remove all exclusionary measures after project completion to the satisfaction of the Engineer.

Visual Resources

The majority of the existing US 93 alignment through the project limits is located on easement through BLM lands. According to the September 1993 *BLM Kingman Resource Area Proposed Resources Management Plan and Final Environmental Impact Statement*, the proposed project is located within a Class II and Class IV Visual Resource Management (VRM) area. The current US 93 alignment and west of the current alignment is located within the Class IV area, and the Class II area is located along the Big Sandy River to the east side of the current US 93 alignment. Below are the objectives for these two classifications established by the *BLM Kingman Resource Area Proposed Resources Management Plan and Final Environmental Impact Statement*:

- **Class II:** "...to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape."
- **Class IV:** "...to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements. This rating does not necessarily mean that the area has low visual value."

The project has views of undeveloped rangelands with pockets of low-density residential and commercial development in the foreground. The project area is in a relatively flat valley situated between the Hualapai Mountains to the west and the Aquarius Mountains to the east.

Per the final design plans and in accordance to the original 2001 FHWA EA, this project will be contouring/sloping the new cut slopes and fill slopes to blend within the natural environment. Vegetation to be removed would primarily consist of mesquite bosque and scrub-like xeric-riparian vegetation which is not rare or endemic to the project limits and is common along this river system and throughout the region. Additionally, construction of the bank protection along the Big Sandy River would remove the natural appearance of the west bank of the river; however, CSA bank protection was selected as it blended best with the natural environment. Although the slope cuts, grading, high cut and fill sections, CSA, and new roadway features would be visible to motorists using US 93; the overall visual character would match the visual characteristics north and south of the project along US 93. Overall visual character throughout the project area would not be substantially changed by the project and the middle and background views would maintain their current visual quality.

ADOT sent a visual quality concurrence letter to BLM on October 23, 2017. BLM concurred that the project is expected to meet their VRM objectives on November 13, 2017 (attached).

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Clean Water Act

Within the project limits, a total of 21 ephemeral wash locations, including Gunsight Canyon, Tompkins Canyon and three separate reaches of the Big Sandy River, were determined to be waters of the US (Waters) in a Preliminary Jurisdictional Determination that was received from the Department of the Army in October 2014 (File No. SPL-2014-00259-KAT). However, construction activities for the proposed project would only impact 18 of the wash locations that were determined to be Waters. The remaining three locations including two reaches of the Big Sandy River, and Tompkins Canyon would be completely avoided by the proposed project. Refer to the table below for a summary of project activities occurring within Waters in the project limits.

Waters Name	Removed Drainage Structures	New Drainage Structures	CSA Bank Protection	Flow Diversion
Big Sandy River (1)	0	3 CBCs and 3 pipe culverts	Big Sandy River CSA	--
Unnamed Wash 5	1 CMP	1 pipe culvert	--	--
Unnamed Wash 8	1 CMP	1 pipe culvert	--	Yes
Unnamed Wash 9	1 CBC	2 CBCs	--	--
Unnamed Wash 12	0	1 CBC	--	--
Unnamed Wash 14	0	0	--	Yes
Unnamed Wash 16	0	1 CMP	--	Yes
Unnamed Wash 26	0	1 RCBC	--	--
Unnamed Wash 28	0	0	Gunsight Canyon CSA	--
Gunsight Canyon (29)	1 CBC	2 bridges	Gunsight Canyon CSA	--
Waters Name	Removed Drainage Structures	New Drainage Structures	CSA Bank Protection	Flow Diversion
Unnamed Wash 31	1 CMP	1 pipe culvert	--	Yes
Unnamed Wash 32	1 CMP	1 pipe culvert	--	Yes
Unnamed Wash 34	1 CBC	1 CBC	--	--
Unnamed Wash 35	0	0	--	--
Unnamed Wash 37	0	1 pipe culvert	--	Yes
Unnamed Wash 39	0	0	--	--
Unnamed Wash 42	0	1 CMP	--	--
Unnamed Wash 47	1 CBC	0	--	Yes
TOTALS	8 existing structures removed from 8 Waters	20 new structures constructed in 13 Waters	3 Waters impacted by CSA Bank Protection	7 Waters will have flows diverted from their existing flow Path

A Clean Water Act Individual Section 404 permit is required for construction the US 93, Carrow to Stephens project due to permanent impacts at the Big Sandy River (1) and Gunsight Canyon (29) exceeding nationwide permit thresholds. The Corps Individual Section 404 permit is in currently in process. Construction will not be able to start until the Corps permit is issued. Cumulatively the project would result in 6.132 acres of permanent impact to waters of the US and 4.527 acres of temporary impact to waters of the US. Impacts to water quality would be minimized as an Individual Section 401 Water Quality Certification is required and a Storm Water Pollution Prevention Plan (SWPPP) would be required for compliance with the Arizona Pollutant Discharge Elimination System (AZPDES) 2013 Construction General Permit. Additionally, best management practices would be implemented to minimize sedimentation and debris within Waters, and all areas temporarily impacted by construction activities would be reclaimed to their existing elevation and topography.

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Environmental Commitments:

Contractor Responsibilities

- The contractor shall comply with all terms and conditions of the attached Section 404 Individual Permit as established by the US Army Corps of Engineers.
- The contractor shall comply with all terms and conditions of the Individual Section 401 Water Quality Certification certified by the Arizona Department of Environmental Quality.

CONCLUSION

Based on this EA Re-evaluation, the planned construction of the Carrow to Stephens (Segment 9) improvements within newly identified ROW and TCEs areas will not result in significant impacts on the human and natural environments. The environmental commitments below provide the mitigating measures for impacts to cultural resources, hazardous materials, biological concerns, and 404 permit requirements. These commitments have been updated from the 2001 EA per new ADOT guidance and standards. In addition, design commitments that have been completed during the final design have been removed from this Re-Evaluation.

Environmental Commitments:

Design Responsibilities

- All disturbed soils not paved that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity.
- The Arizona Department of Transportation will perform any right-of-way acquisition in accordance with 49 CFR §24 and The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

ADOT Roadside Development Responsibilities

- The Arizona Department of Transportation Roadside Development Section will provide special provisions for the control of noxious and invasive species during construction that may require treatment and control within the project limits.
- Protected native plants within the project limits will be impacted by this project; therefore, the Arizona Department of Transportation Roadside Development Section will determine if Arizona Department of Agriculture notification is needed. If notification is needed, the Arizona Department of Transportation Roadside Development Section will send the notification at least 60 (sixty) calendar days prior to the start of construction.

Northwest District Responsibilities

- The Engineer will comply with all provisions identified in the attached executed Programmatic Agreement, entitled *Programmatic Agreement among Federal Highway Administration, Arizona Department of Transportation, U.S. Bureau of Land Management, Arizona State Land Department, Arizona State Museum, Hualapai Tribe, Hopi Tribe, Yavapai-Prescott Indian Tribe, Ft. Mojave Indian Tribe, Yavapai-Apache Nation, Colorado River Indian Tribes, U.S. Army Corps of Engineers, Arizona State Historic Preservation Officer, and Advisory Council on Historic Preservation, Regarding the Historic Properties along United States Route 93 between Wikieup and I-40, Mohave County, Arizona.*
- The Engineer will contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team (602.712.8636 or 602.712.7767) 14 days prior to construction to ensure that the terms and stipulations of the Programmatic Agreement have been fulfilled.
- No work will occur within the project limits until the Arizona Department of Transportation Environmental Planning Historic Preservation Team informs the Engineer that testing/data recovery has been completed in accordance with the terms and stipulations of the executed Programmatic Agreement.

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Northwest District Responsibilities (continued)

- The Engineer will contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team at 602.712.2343 or 602.712.7767 to schedule the partnering meeting or preconstruction meeting on a mutually agreeable date to ensure a qualified Environmental Planning representative will be able to attend the meeting.
- The contractor cannot start work associated with work on the reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964) until 10 (ten) working days have passed since the submittal of the National Emission Standard for Hazardous Air Pollutants notification to the regulatory agencies.
- The Engineer, in association with the contractor, will complete the National Emission Standard for Hazardous Air Pollutants documentation and submit it to the Arizona Department of Transportation Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for review 5 (five) working days prior to being submitted to regulatory agencies.
- Prior to construction activity the contractor's field personnel including the Project Manager, Assistant Project Manager, General Superintendent, and Project Superintendent shall review the attached Arizona Department of Transportation Environmental Planning "Sonoran Desert Tortoise Awareness Program Handout" flier revised March 2017, become familiar with the identification and avoidance of the Sonoran Desert Tortoise, and follow the notification request, as applicable.
- If any active bird nests cannot be avoided by vegetation clearing or construction activities, the Engineer will contact the ADOT Environmental Planning Biologist (602.712.6819 or 602.622.9622) to evaluate the situation.

Contractor Responsibilities

- Access to adjacent businesses and residences shall be maintained throughout construction.
- The contractor shall comply with all local air quality and dust control rules, regulations and ordinances which apply to any work performed pursuant to the contract.
- The contractor shall comply with all provisions identified in the attached executed Programmatic Agreement, entitled *Programmatic Agreement among Federal Highway Administration, Arizona Department of Transportation, U.S. Bureau of Land Management, Arizona State Land Department, Arizona State Museum, Hualapai Tribe, Hopi Tribe, Yavapai-Prescott Indian Tribe, Ft. Mojave Indian Tribe, Yavapai-Apache Nation, Colorado River Indian Tribes, U.S. Army Corps of Engineers, Arizona State Historic Preservation Officer, and Advisory Council on Historic Preservation, Regarding the Historic Properties along United States Route 93 between Wikieup and I-40, Mohave County, Arizona.*
- No work shall occur until the Engineer informs the contractor that work may commence.
- Access to the Carrow-Stephens Ranch will be coordinated with the Bureau of Land Management to accommodate entry to the ranch.
- No project activities shall occur along the east side of US 93 between milepost 117.5 and milepost 117.9 until the avoidance area has been flagged by a qualified archaeologist.
- The contractor shall contact the Arizona Department of Transportation Environmental Planning Historic Preservation Team (602.712.2343 or 602.712.7767) at least 15 (fifteen) business days prior to the start of construction activities within the avoidance areas to arrange for flagging by a qualified archaeologist.
- The contractor shall complete a National Emissions Standards for Hazardous Air Pollutants notification for work associated with work on the reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964) and submit it to the Engineer for review.

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Contractor Responsibilities (continued)

- After Engineer approval, the notification shall be submitted to the Arizona Department of Transportation Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for a 5 (five) working-day review and approval. Upon approval by the Arizona Department of Transportation Environmental Planning hazardous materials coordinator, the contractor shall file the notification with the Arizona Department of Environmental Quality at least 10 (ten) working days prior to demolition/renovation associated with work on the reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964).
- The contractor cannot start work associated with work occurring on reinforced concrete box (structure number 4963) or the Gunsight Canyon the reinforced concrete box (structure number 4964) until 10 (ten) working days have passed since the submittal of the National Emissions Standard for Hazardous Air Pollutants notification to the regulatory agency.
- The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the State and Federal Noxious Weed and the State Invasive Species list in accordance with State and Federal Laws and Executive Orders. The plan and associated treatments shall include all areas within the project right of way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the Arizona Department of Transportation Construction Professional Landscape Architect for review and approval prior to implementation by the contractor.
- Prior to the start of ground-disturbing activities and throughout the entire duration of the contract, the contractor shall arrange for and perform the control of noxious and invasive species in the project area.
- To prevent the introduction of invasive species seeds, the contractor shall inspect all earthmoving and hauling equipment at the storage facility. All vehicles and equipment shall be washed and free of all attached plant/vegetation and soil/mud debris prior to entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.
- Prior to construction activity the contractor's field personnel including the Project Manager, Assistant Project Manager, General Superintendent, and Project Superintendent shall review the attached Arizona Department of Transportation Environmental Planning "Sonoran Desert Tortoise Awareness Program Handout" flier revised March 2017, become familiar with the identification and avoidance of the Sonoran Desert Tortoise, and follow the notification request, as applicable.
- The contractor shall report encounters with any Sonoran Desert tortoises (live, injured, or dead) during construction to the Engineer using the attached Arizona Department of Transportation Sonoran Desert Tortoise Observation Form. The final form shall be sent to Arizona Department of Transportation Environmental Planning (email jfife@azdot.gov) within 24 hours of the encounter. Photographs should be taken of tortoises encountered, and included in the report if possible.
- If any Sonoran Desert tortoises are encountered during construction, the contractor shall adhere to the attached Arizona Game and Fish Department "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" revised September 22, 2014. If any tortoise is encountered during construction the contractor shall notify the Engineer to report the encounter.
- All viable cacti, Yucca species, and Nolina species, as identified during final design by ADOT/BLM are Salvage Restricted native plants which shall be avoided by the construction contractor. If such plants cannot be avoided by construction, the contractor shall arrange for these plants to be transplanted within the project limits.

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Contractor Responsibilities (continued)

- If vegetation clearing will occur during the migratory breeding season (March 1 – August 31), the contractor shall avoid any active nests. If the active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During non-breeding season (September 1 – February 28) vegetation removal is not subject to this restriction.
- The contractor shall not cause injury or death to swallows, including eggs and nestlings, and shall avoid work within 100 feet of nesting swallows from February 1 to August 30 of any calendar year. If work will occur within 100 feet of nesting swallows between February 1 and August 30, the contractor shall adhere to the following:
 - The contractor shall completely remove all existing swallow nests within 100 feet of work areas after August 30 but prior to February 1 to prevent swallows from reusing those nests.
 - The contractor shall implement exclusionary measures to prevent birds from building new nests within 100 feet of work areas. Exclusionary measures shall be implemented in all areas where birds are likely to nest, and may include (a) continually removing nesting materials during early nest construction when eggs or nestlings are not present, (b) installing exclusionary netting (wire or plastic mesh 0.75 inch or less in diameter), (c) installing deterrent spike strips, and/or (d) installing polytetrafluoroethylene (Teflon) sheeting.
 - The contractor shall not disturb any active swallow nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered within 100 feet of construction activities, work shall stop and the Arizona Department of Transportation Environmental Planning biologist shall be contacted (602.712.6819 or 602.622.9622) to evaluate the potential for disturbance of nests.
 - The contractor shall monitor and maintain the effectiveness of exclusionary measures daily. Netting shall be maintained such that it remains in place without any loose areas or openings that could trap and/or entangle birds. Spike strips shall be maintained such that they remain in place. Teflon sheeting shall be reapplied as often as necessary to remain effective.
 - The contractor shall remove all exclusionary measures after project completion to the satisfaction of the Engineer.
- The contractor shall comply with all terms and conditions of the attached Section 404 Individual Permit as established by the US Army Corps of Engineers.
- The contractor shall comply with all terms and conditions of the Individual Section 401 Water Quality Certification certified by the Arizona Department of Environmental Quality.

References

Bureau of Land Management (BLM). 2017. *BLM Grazing Allotments in Arizona*. Available at <https://databasin.org/datasets/f367880144ae4671add747e307fbe046>. Accessed on July 20, 2017.

Mohave County. 2015. *Mohave County 2015 General Plan*. Available at <http://www.cpchampion.com/wp-content/uploads/pdf/research/genplans/Mohave%20County.pdf>. Accessed on August 1, 2017.

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Attachments:

Figure 1. Tentative Implementation Plan from July 2001 DCR
Figure 2. State Map
Figure 3. Project Area Map
Figure 4. Section 4(f) Map
BLM Concurrence for BE
Sonoran Desert Tortoise Awareness Program Handout flier
BLM VRM Concurrence Letter
Section 404 Individual Permit - pending
- Section 401 Water Quality Certification - pending

c: John Wennes, ADOT Environmental Planning
Adam McGuire, ADOT Project Management
Diana Dunn, AZTEC

PO:jw:dmd

ATTACHMENTS

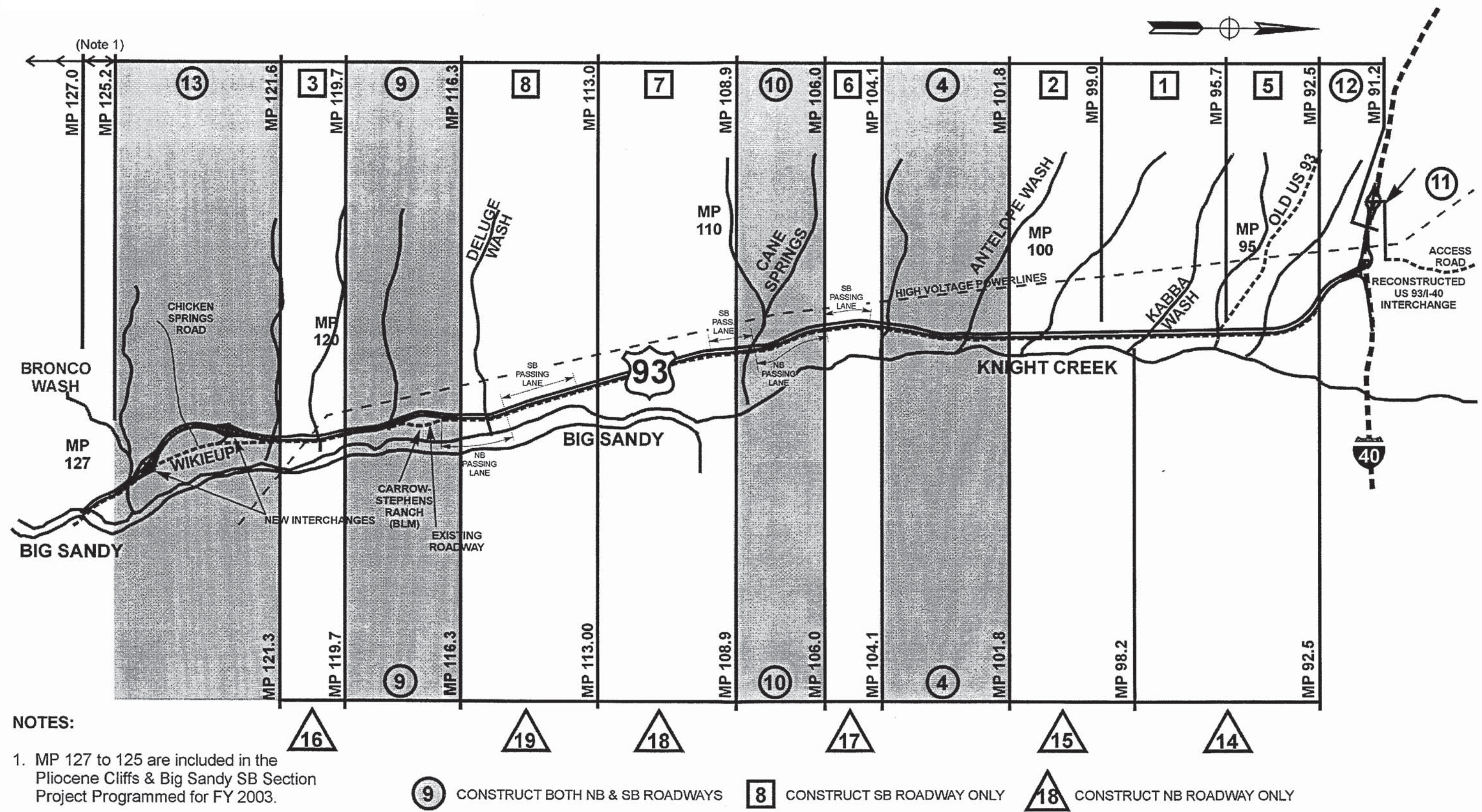


Figure 1. Tentative Implementation Plan from July 2001 DCR
NH 093-B(205)N
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US 93, Carrow to Stephens

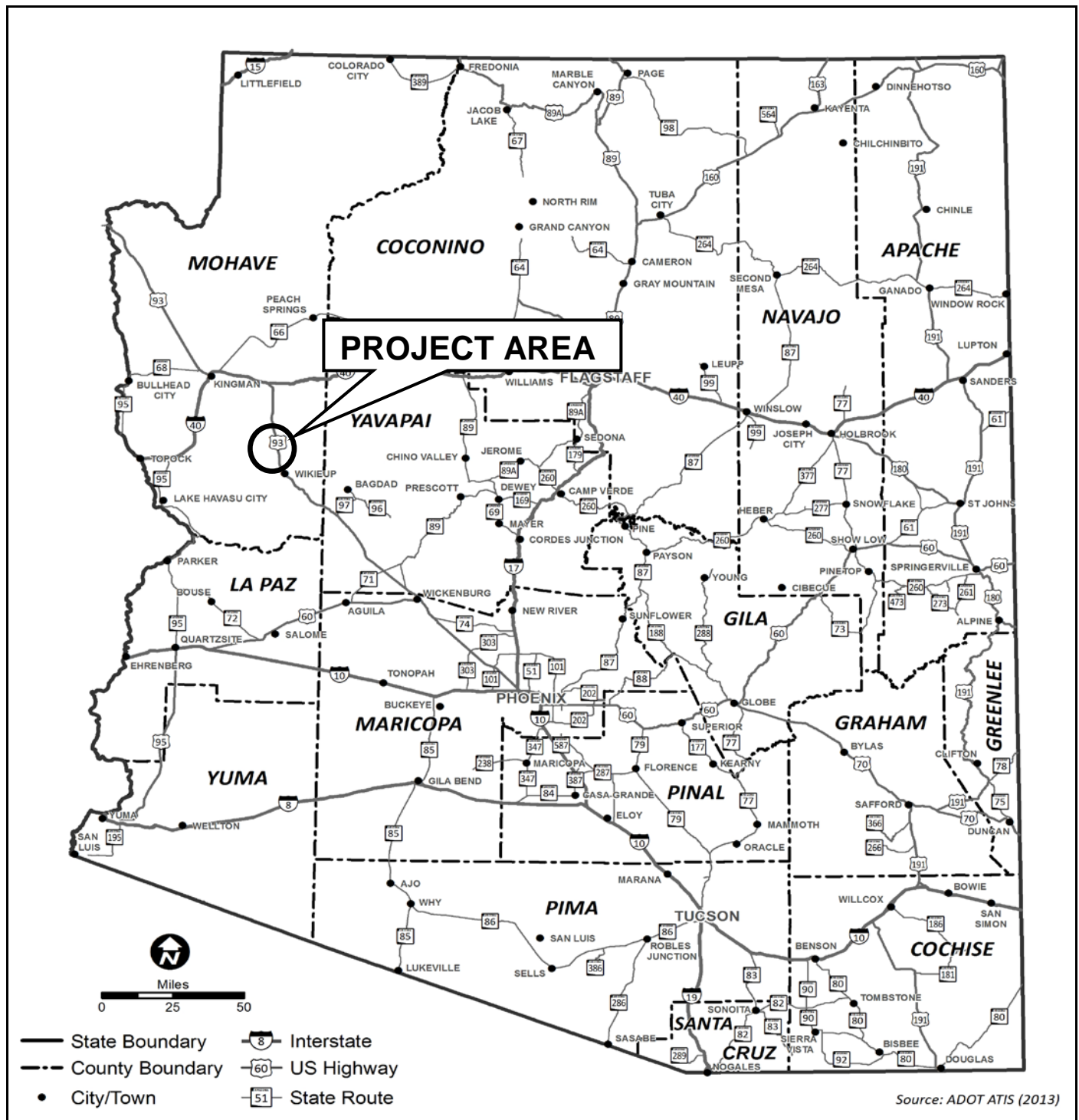


Figure 2. State Map
 NH 093-B(205)N
 093 MO 115 H8232 01C
 US 93, Carrow to Stephens

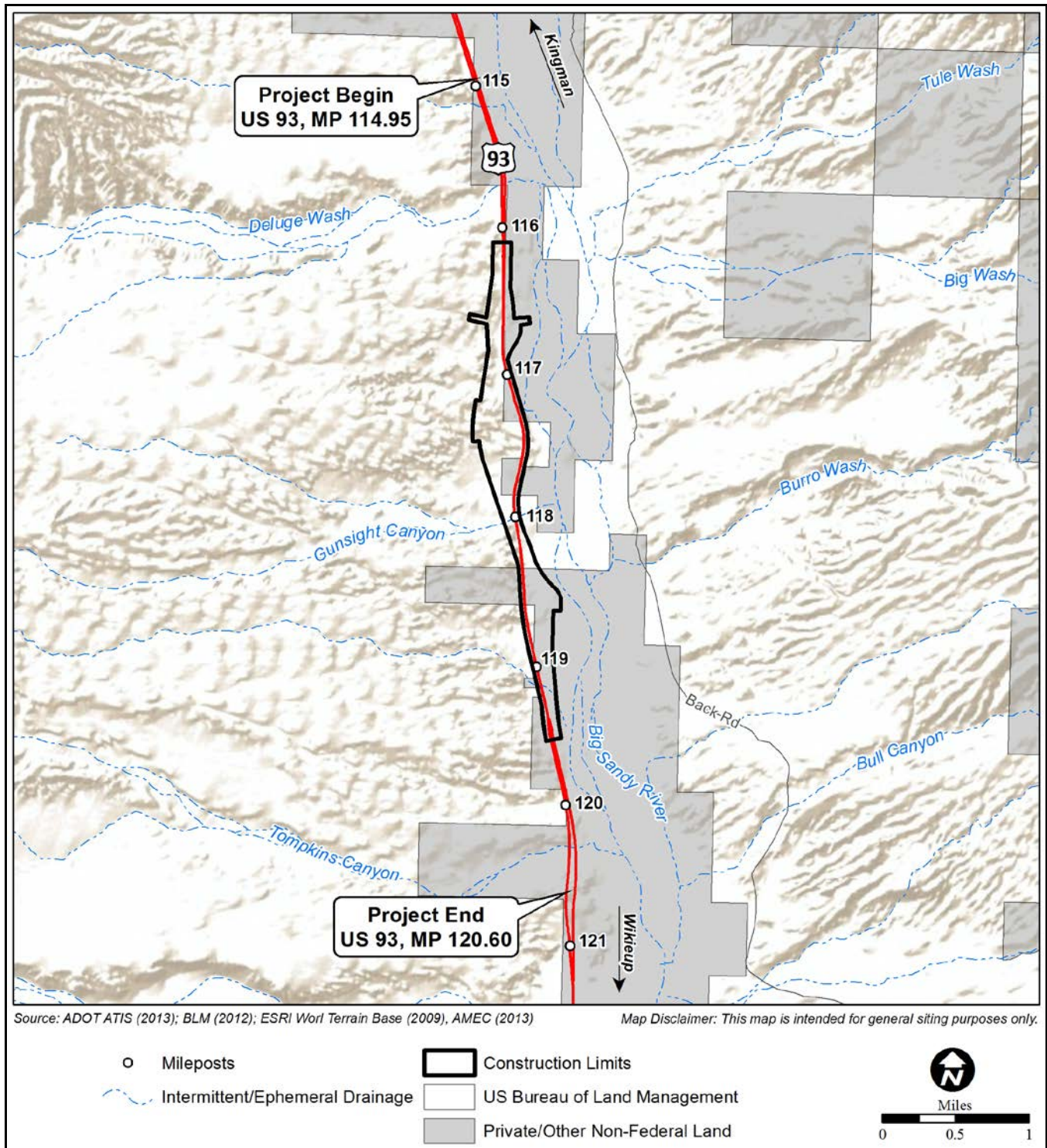


Figure 3. Project Area Map
 NH 093-B(205)N
 093 MO 115 H8232 01C
 US 93, Carrow to Stephens

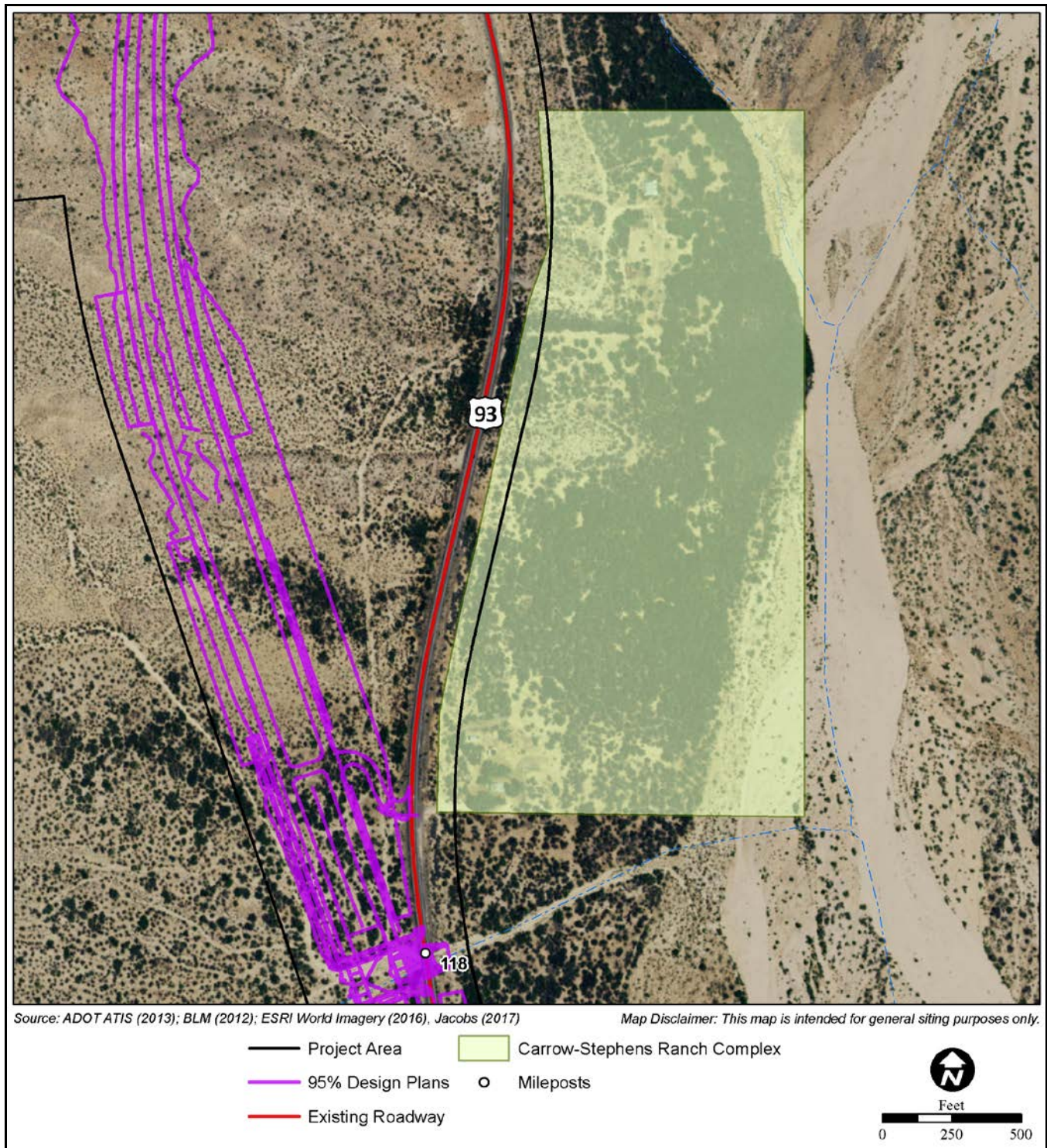


Figure 4. Section 4(f) Map
NH 093-B(205)N
093 MO 115 H8232 01C
US 93, Carrow to Stephens



Douglas A. Ducey, Governor
John S. Halikowski, Director
Dallas Hammit, Deputy Director for Transportation

December 18, 2017

Ms. Celeste Mimnaugh

Realty Specialist

Bureau of Land Management, Kingman Field office
2755 Mission Boulevard
Kingman, Arizona 86401

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Subject: Biological Evaluation
2800 (C010)
NH 093-B(205)N
093 MO 115 H8232 01C
US93 Carrow to Stephens
AZAR 004275, AZAR 004342, AZAR 026206, AZAR 032064

BLM KINGMAN FIELD OFFICE

Dear Ms. Mimnaugh:

The Arizona Department of Transportation (ADOT), in association with the Federal Highway Administration, is planning to complete Segment 9 of the *US 93, Wikieup to Interstate 40*, roadway improvement project. The project is located along and adjacent to United States Highway (US) 93 between milepost (MP) 116.10 and MP 119.50 approximately 6 miles north of the Town of Wikieup, Mohave County, Arizona. However, the project limits extend along US 93 between MP 114.95 and MP 120.60 for traffic control. A portion of the project would occur within existing ADOT easement through the Bureau of Land Management (BLM) lands. The majority of the work will be conducted within the existing easement, though approximately 37.75 acres of new easement and temporary construction easement will be required.

A Biological Evaluation (BE) was completed for the project, and a copy is enclosed for your files. The BE includes a project description and a determination that the project will have no effect to any threatened, endangered, proposed, or candidate species. However, the project may impact individuals of Sonoran desert tortoise (*Gopherus morafkai*), but is not likely to result in a trend toward federal listing or loss of viability. If you feel the document is satisfactory, please sign below and return this letter to me at the following address: 1611 W. Jackson St., MD EM02, Phoenix, AZ 85007. If you need any additional information, or have any comments, please feel free to contact me by phone 602.622.9622, by e-mail at JFife@azdot.gov, or in writing at the address listed above. In order for the project to remain on schedule, it would be appreciated if any comments or requests for more information could be made by **January 18, 2018**. Thank you for your time and assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "JFife", written over a horizontal line.

Joshua Fife
Biology Team Leader
ADOT Environmental Planning

Ms. Mimnaugh
December 18, 2017
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Enclosures: Biological Evaluation

c: Jessica Rybczynski, AZTEC Engineering

Rebecca L. Peck
Reviewed by

12/28/2017
Date

Rebecca L. Peck



Sonoran Desert Tortoise

Gopherus morafkai

Awareness Program Handout

Why does ADOT protect tortoises?

ADOT, along with the Arizona Game and Fish Department (AGFD) and several federal agencies, are signatory members of a Candidate Conservation Agreement (CCA) for the Sonoran Desert Tortoise (SDT). The CCA was developed to help preclude the listing of SDT under the Endangered Species Act. It is a cooperative effort to provide effective conservation for the SDT in Arizona. Under the agreement, ADOT has committed to enact avoidance, minimization, and mitigation measures for projects occurring within and adjacent to suitable habitat for SDT. This includes surveying proactively for tortoise habitat ahead of projects, collecting information on sightings, and training staff and contractors on methods to protect the tortoise during construction and maintenance work.

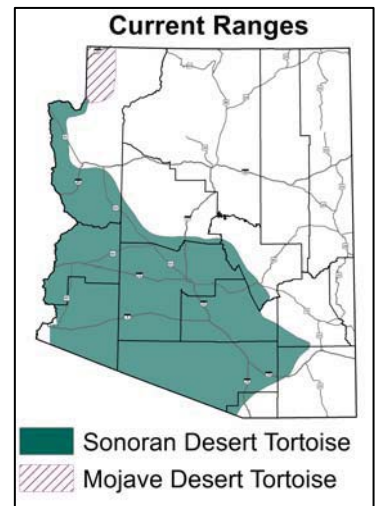


Legal Status

The SDT is protected under a CCA as described above. At the state level, wildlife are protected from collection and sale under Title 17 (ARS 17-309). AGFD classifies the SDT as a Tier 1A Species of Greatest Conservation Need and SDT are specifically restricted from collection under the AGFD Commission Rule R12-4-406.

Where are they found?

Two separate and distinct populations of desert tortoise occur in Arizona. The Mojave Desert Tortoise occurs west and north of the Colorado River within open, flat expanses of desert. The Sonoran Desert Tortoise occurs primarily in rocky and boulder strewn mountains and hills east of the Colorado River throughout western and central Arizona.



This handout applies ONLY to the Sonoran Desert Tortoise. Separate guidelines/measures are required for the Mojave Desert Tortoise due to its listing as Threatened under the Endangered Species Act.



THE GOAL IS TO AVOID NEGATIVE ENCOUNTERS!

How?

1. ALWAYS check under your vehicle and construction equipment **before** operating.
2. Drive slowly, especially on unpaved roads or off-road.
3. Cover any holes/pits/trenches at the end of each construction day.



Sonoran Desert Tortoise

Gopherus morafkai

Awareness Program Handout

If you encounter a tortoise:

1. Stop work immediately and turn off all equipment.
2. Notify your superintendent and the Resident Engineer.
3. Is the tortoise in imminent danger?
 - **No:** Stay back at least 10 feet from the animal. Allow the animal to leave. PLEASE BE PATIENT!
 - If the animal is located within your work area and is not leaving in a timely manner, then move your operation to a different location at least 1,000 feet away.
 - **Yes:** Move it out the way by following the attached AGFD "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" dated September 22, 2014.
 - Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim.
 - Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade.
 - Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises.
 - Tortoises must not be moved if the ambient air temperature exceeds 40°C (105°F) unless an alternate burrow is available or the tortoise is in imminent danger.
 - A tortoise may be moved up to one-half mile, but no further than necessary from its original location.



---If you don't know or are unsure of what to do, ASK!---

4. Fill out the attached ADOT Sonoran Desert Tortoise Observation Form and submit to the ADOT Biology Team (bioteam@azdot.gov) within 24 hours of any encounter. Photograph the animal if possible.

If you encounter a **sick, dying, injured, or dead tortoise** or if the ambient air temperature exceeds 105° F, please contact Joshua Fife (602.622.9622) immediately with the location of the animal. These animals will be collected either by trained ADOT personnel or by AGFD.

If you observe poaching, collecting, selling, or any other illegal activities, contact AGFD's OPERATION GAME THIEF at **1-800-352-0700**, 24 hours a day or on the internet at <http://www.azgfd.gov/ogt.shtml>

Additional information for SDT life history and habitat requirements is available at:

Arizona Game and Fish Department:

<https://www.azgfd.com/wildlife/nongamemanagement/tortoise/>

US Fish and Wildlife Service:

https://www.fws.gov/southwest/es/arizona/Sonoran_Tort.htm



GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised September 22, 2014

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran desert tortoise occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40 Celsius (105 Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site or alternate burrow is unavailable within this distance, and ambient air temperature exceeds 40 Celsius (105 Fahrenheit), contact the Department for guidance. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, may be placed in the Department's tortoise adoption program. *Managers of projects likely to affect desert tortoises should obtain a [scientific collecting license](#) from the Department to facilitate handling or temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

Use the Department's [Environmental On-Line Review Tool Department](#) during the planning stages of any project that may affect desert tortoise habitat.

Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

Take is prohibited by state law.

These guidelines do not apply to Mojave desert tortoises (north and west of the Colorado River). Mojave desert tortoises are listed as threatened under the Endangered Species Act, administered by the U.S. Fish and Wildlife Service.

These guidelines are subject to revision at the discretion of the Department.

Arizona Department of Transportation
Sonoran Desert Tortoise Observation Form



Date of Observation

Time

Observed By

Location- Route

Location- Milepost

ADOT District

Description of Encounter

Photo(s)

☐

GPS (if available)

Email completed form to:

ADOT Biology Team

bioteam@azdot.gov



United States Department of the Interior



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Kingman, Arizona 86401
www.az.blm.gov

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In Reply Refer To:
2800 (C010)
ADOT TRACS No: 093 MO 115 H8232 01D
US93, Carrow to Stephens
AZAR 004275, AZAR 004342, AZAR 026206, AZAR 032064

John Wennes
NEPA Planner
ADOT Environmental Planning
1611 W. Jackson Street Mail Drop EM02
Phoenix, AZ 85007

Dear Mr. Wennes:

This letter is in response to your October 23, 2017 letter regarding the Carrow to Stephens segment on the US 93 Wikieup to Interstate 40 roadway improvement project and its effects to visual resources.

The implementation of visual resource mitigation measures as described in the Final Environmental Assessment and Section 4(f) Evaluation (April 2001), signed on April 3, 2001, are expected to meet the Kingman Field Office (KFO) class II and class IV visual resource management objectives identified in the KFO Resource Management Plan (approved March 1995). To date, the KFO has also provided additional comments concerning visual resources. These concerns have been satisfactorily addressed.

This office appreciates the opportunity to provide input throughout the completion of the project as it pertains to visual resources. For questions or concerns specific to visual resources, please contact Matt Driscoll, Outdoor Recreation Planner at (928) 718-3736 or at mdriscoll@blm.gov.

Sincerely,

Amanda M. Dodson
Field Manager