

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ENVIRONMENTAL & ENHANCEMENT GROUP

FINAL ENVIRONMENTAL ASSESSMENT

for

**US 93, WICKENBURG TO THE SANTA
MARIA RIVER**

Interim Project No. STP-093-B(872)
TRACS No. 093 YV 161 H4871 01L
Prescott and Kingman Districts - Yavapai County

March 2005

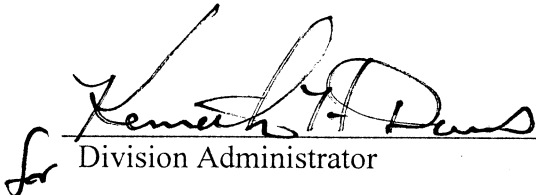
FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR

Project STP-093-B(872)
093 YV 161 H4871 01L
US-93; Wickenburg to Santa Maria River

The FHWA has determined that this project will not have any significant impact on the human environment. This Finding of NO Significant Impact is based on the attached Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

April 18, 2005

Date


for Division Administrator

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ENVIRONMENTAL & ENHANCEMENT GROUP

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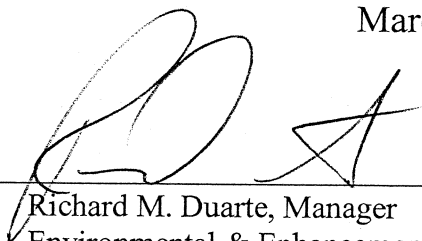
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March 2005

Approved by:


Richard M. Duarte, Manager
Environmental & Enhancement Group
Arizona Department of Transportation

Date:

3-16-05

This Final Environmental Assessment has been prepared in accordance with the provisions and requirements of Title 23, Code of Federal Regulations, Part 771, relating to the implementation of the National Environmental Policy Act of 1969 (42 US Code 4332(2)(c)).

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PREFACE

The Arizona Department of Transportation (ADOT) and the Federal Highway Administration (FHWA) are proposing improvements to US 93 between State Route (SR) 89 and the Santa Maria River in Yavapai County, Arizona. A Draft Environmental Assessment (DEA) for the proposed project was approved in October 2004. On November 17, 2003, a public hearing was conducted to receive public comments on the preferred alternative identified in the DEA.

The purpose of this Final Environmental Assessment (FEA) is to respond to the comments received subsequent to the distribution of the DEA and the public hearing and to provide factual corrections to the DEA. This FEA is presented in addendum format and must be considered in conjunction with the DEA. Deleted text is identified with a ~~striketrough~~, with new or substituted text appearing in *italics*. Throughout the document, references to the “preferred alternative” are changed to “selected alternative,” and uses of the verb “would” are changed to “will,” when referring to the proposed project and selected alternative. Additional changes are listed by the page on which the text is found in the DEA.

This FEA includes the complete list of mitigation measures that have been subdivided into ADOT design responsibilities, ADOT construction district responsibilities, and contractor responsibilities. The FEA also includes text changes to the DEA, copies of agency correspondence subsequent to the DEA distribution (Appendix K), the public hearing transcript (Appendix L), and a summary of public comments with ADOT responses (Appendix M).

MITIGATION MEASURES

Mitigation measures have been defined to avoid or minimize the environmental impacts of the preferred alternative. The following mitigation measures and commitments are not subject to change without the prior written approval of the Federal Highway Administration.

Design Responsibilities

- *The Arizona Department of Transportation will provide a roadside table facility for both directions of traffic in the vicinity of the existing roadside table. Each facility will include a trash receptacle, parking area, and emergency phone call box. The final locations of the facilities will be determined during design (page 24).*
- *For each project design segment, the Arizona Department of Transportation will coordinate with affected landowners, land management agencies, and lease holders to identify opportunities and specific design measures to minimize impacts on livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination (page 27).*
- To minimize impacts on adjacent land use, existing cattle crossings under US 93 will be maintained or relocated. To maintain existing cattle crossings, existing box culverts that are 6 feet in height or greater will not be downsized and will be designed to function as cattle passes where feasible. If during design it is determined that the existing cattle passes cannot be retained, the Arizona Department of Transportation will contact the affected land managing agency for information on cattle crossing needs and arrange for the development of improved crossing locations or the provision of new livestock water sources (page 28).
- During final design, the Arizona Department of Transportation will review the project plans to verify the extent of encroachment within the 100-year floodplain and will obtain the required floodplain construction permits from the Yavapai County Flood Control District (page 30).
- During final design, the project plans will be reviewed to verify the extent of encroachment into waters of the US. As appropriate, *mitigation plans will be developed and* certifications and permits required under Sections 401 and 404 of the Clean Water Act will be obtained by the Arizona Department of Transportation prior to construction (page 30).
- The Arizona Department of Transportation Roadside Development Section will determine who will prepare the Storm Water Pollution Prevention Plan (page 30).
- A survey for loggerhead shrike nests will be performed by a qualified biologist during final design. The survey will be conducted in areas that will be disturbed by construction activities and are located on or within one mile of Bureau of Land Management lands. If loggerhead shrike nests are found, the Arizona Department of Transportation will coordinate with the Bureau of Land Management regarding potential impacts to the species (page 34).

- A survey for western burrowing owls will be performed by a qualified biologist during final design. The survey will be conducted in areas that will be disturbed by construction activities and are located on or within one mile of Bureau of Land Management lands. If western burrowing owls are found, the Arizona Department of Transportation will coordinate with the Bureau of Land Management regarding potential impacts to the species (page 34).
- Game fence consistent with the Arizona Department of Transportation Game Fence Specification included in Appendix E will be installed along the right-of-way line in all portions of the project that are not immediately adjacent to developed areas (page 35).
- *The Arizona Department of Transportation will include the Arizona Game and Fish Department in the design partnering process to address wildlife movement issues. During design, Arizona Game and Fish Department representatives will be requested to provide input in discussions about wildlife opportunities and the development of appropriate wildlife-sensitive design measures at locations identified as important for wildlife connectivity and movement, including the Date Creek and Big Jim Wash bridges. In conjunction with the wildlife-sensitive design efforts, further examination of available wildlife strike data for the project area will be conducted (page 36).*
- The Arizona Department of Transportation Roadside Development Section will notify the Arizona Department of Agriculture at least 60 days prior to the start of construction to afford commercial salvagers the opportunity to remove and salvage any plants that are not included in the plant salvage plan (page 37).
- A plan for the inventory, salvage, storage, and transplantation of native plants, including saguaro, agave, and Joshua trees, will be developed by the Arizona Department of Transportation Roadside Development Section during final design. Healthy, salvageable native plants within the area of disturbance will be salvaged and transplanted to the extent practicable to replicate the surrounding vegetative density (page 37).
- Disturbed areas will be seeded with a seed mix consisting of native species selected for the site and will be revegetated with salvaged plants. During final design, the Arizona Department of Transportation will develop the seed mix. Revegetation plans will identify, where applicable, the need for mulching, salvaging, topsoiling, and other necessary treatments to promote successful plant establishment (page 37).
- During final design, the Arizona Department of Transportation Natural Resources Section will survey the project area for invasive species. If invasive species are found, the Arizona Department of Transportation Natural Resources Section will treat these species according to an invasive species management plan and any necessary treatments will continue following completion of construction (page 38).
- During final design, the variable-width median and roadway centerline will be located to minimize visual impacts and maximize travelers' experience within the Joshua Forest Scenic Road (page 40).

- Vegetation within the median area will be protected in-place to the extent possible in areas where the median width will be greater than 84 feet (page 40).
- The cottonwood trees located in the vicinity of milepost 166.8 will be protected in-place (page 40).
- Seeding of disturbed areas will occur in a progressive manner as the slopes are completed (page 40).
- Newly exposed rock faces will be shaped to blend with natural rock features by incorporating characteristics of the adjacent natural rock to include color, scale, shape, slope, and fracturing to the extent that is practical and feasible as identified through geotechnical testing and constructability reviews (page 40).
- Rock outcrops will be left in place after construction if they are determined to be stable; will blend into the surrounding terrain; and will not create a hazard to the traveling public, interfere with construction, or look out of place in the natural landscape (page 40).
- At the intersections of cuts and natural grades, slopes will be adjusted and warped to flow into each other or transition into the natural ground surfaces without noticeable breaks (page 40).
- Cut and fill slopes will be designed with varied slope ratios to leave an irregular, undulating, or roughened appearance rather than a uniform grade to simulate the terrain of the surrounding area. The slope ratios will vary from the top to the bottom of the slope face and from station to station (page 41).
- ~~To avoid retaining uncharacteristic and unnatural landforms resulting from construction, the project plans would indicate remnants of landforms to be removed completely~~ *The project plans will identify remnants of landforms to be modified to make them appear more natural and to avoid leaving uncharacteristic fin-shaped landforms in the median* (page 41).
- Any riprap material will blend with the surrounding rock and exposed soil color (page 41).
- Erosion control matting will be composed of a natural, earth-tone material (page 41).
- During final design, the Arizona Department of Transportation will evaluate the use of staining exposed rock to reduce the color contrast with the existing landscape (page 41).
- Bridges, concrete barriers, retaining walls, and highly visible culvert headwalls and endwalls will be constructed with color and/or texture qualities that blend with the existing landscape (page 41).
- Where guardrail is required, natural-appearing metal guardrail material, such as naturally weathered steel, will be installed to blend with the landscape (page 41).

- During final design, copies of the construction documents will be provided to the Parkway, Historic, and Scenic Roads Advisory Committee for review and comment (page 41).
- During final design, the Federal Highway Administration's Visual Prioritization Process (1994) or its equivalent will be used to identify site-specific measures to reduce impacts to visual resources (page 41).
- All asphalt not reused as part of the project will be removed from the site or incorporated into roadway embankments under a minimum of 3-foot cover, and the roadbed will be reshaped, scarified, and revegetated. All abandoned sections of old roadway will be obliterated and made to blend with the existing landscape (page 41).
- Within the designated limits of the Joshua Forest Scenic Road, signing and other roadside elements, such as reflectors, delineators, and object markers, will be limited to those essential to ensure efficient traffic operations (page 41).
- If possible, any new roadway signs will be placed to avoid obstructing northbound motorists' views of the Shiprock formation between mileposts 166.0 and 164.0. The Arizona Department of Transportation will field-verify the placement of roadway signs before installation (page 41).
- An Initial Site Assessment will be conducted during final design to assess hazardous materials concerns associated with right-of-way acquisition at the US 93/State Route 71 junction. If necessary, remedial measures will be implemented based on the results of the assessment (page 47).
- During final design, the Arizona Department of Transportation will conduct assessments to determine the presence of asbestos within any bridge structure that will be altered or modified as a result of construction. The Arizona Department of Transportation will also conduct assessments to determine the presence of Resource Conservation and Recovery Act metals (e.g., lead-based paint) on these structures (page 47).
- ~~A Programmatic Agreement to determine the appropriate treatment for sites that could not be avoided but are eligible for the National Register of Historic Places would be executed among the Arizona Department of Transportation, Federal Highway Administration, Bureau of Land Management, and State Historic Preservation Office prior to construction. The stipulations contained in the Programmatic Agreement between the Arizona Department of Transportation, Federal Highway Administration, Bureau of Land Management, and State Historic Preservation Office will be fully satisfied prior to the beginning of construction (page 49 50).~~
- *During design, the Arizona Department of Transportation will administer a public involvement program for the design segment including the State Route 89 junction and Vista Royale area in order to give area residents the opportunity to provide input on specific design issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the*

60 percent design stage addressing the concerns identified during the early coordination (page 68).

Prescott and Kingman District Responsibilities

- The District will submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 30).
- A construction notice will be provided to adjacent residents and businesses at least two weeks prior to construction (page 54).

Contractor Responsibilities

- Permanent cross-drainage structures shall be installed at the earliest possible phase of construction to minimize potential erosion throughout the duration of construction (page 30).
- The contractor shall submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 30).
- The contractor shall employ a qualified biologist to provide instructional materials regarding the protection of chuckwalla and desert rosy boa to all supervisory construction personnel prior to performing any ground-disturbing activities related to construction of the project (page 33).
- A desert tortoise survey shall be conducted by a qualified biologist 15 days prior to the beginning of construction in areas of suitable tortoise habitat that will be disturbed (page 34).
- Because Sonoran desert tortoises occur within the project area, the contractor shall comply with the Arizona Game and Fish Department's Tortoise Handling Guidelines included in Appendix D if specimens are encountered during construction (page 34).
- The contractor shall salvage and replant native plants within the area of disturbance in accordance with the plant salvage and revegetation plans (page 37).
- Disturbed areas shall be seeded with a seed mix consisting of native species selected for the site and shall be revegetated with salvaged native plants (page 37).
- All earth-moving and hauling equipment shall be washed at the contractor's storage facility prior to entering the construction site to prevent the introduction of invasive species (page 38).
- If invasive species are found within the project area, the contractor shall be required to wash all earth-moving and hauling equipment prior to leaving the construction site in order to prevent the spread of invasive species to uncontaminated areas (page 38).
- The contractor shall stake the clearing limits for Arizona Department of Transportation Engineer's approval prior to the start of clearing. These limits shall be irregular where possible, and straight clearing lines shall be avoided by varying the width of the area to be

cleared or by leaving selected clusters of vegetation near the edge of the clearing limits (page 40).

- The contractor shall remove trees only when specifically authorized to do so by the Arizona Department of Transportation Engineer and shall protect in-place the vegetation outside the specified clearing limits (page 40).
- Vegetation within the median area shall be protected in-place to the extent possible in areas where the median width will be greater than 84 feet (page 40).
- The contractor shall protect in-place the cottonwood trees located in the vicinity of milepost 166.8 (page 40).
- Seeding of disturbed areas shall occur in a progressive manner as the slopes are completed (page 40).
- Any riprap material shall blend with the surrounding rock and exposed soil color (page 41).
- Erosion control matting shall be composed of a natural, earth-tone material (page 41).
- The contractor shall protect in-place existing rock and landforms outside the clear zone during construction (page 41).
- All asphalt not reused as part of the project shall be removed from the site or incorporated into roadway embankments under a minimum of 3-foot cover, and the roadbed shall be reshaped, scarified, and revegetated. All abandoned sections of old roadway shall be obliterated and made to blend with the existing landscape (page 41).
- If asbestos and/or heavy-metal materials are found as a result of the assessments of bridge structures conducted by the Arizona Department of Transportation, the contractor shall ~~be required to~~ prepare a plan detailing the proper procedures for the demolition or modification of the structures and the disposal or abatement of the asbestos and/or heavy-metal materials. In addition, the contractor shall obtain any permits required for demolition of the structures or disposal of the asbestos or heavy-metal materials (page 47).

CHANGES TO THE DRAFT EA

- ▶ Page ii – The following is inserted at the end of the list of appendices: “*Appendix J – Agency Correspondence*”
- ▶ Page 24 – The fourth bullet point below Alternative C-3 is modified as follows: “The existing roadside table facility on the west side of US 93 at MP 172.6 will be ~~replaced~~ *removed*. ADOT is ~~currently investigating alternatives to~~ *will provide new a roadside table facility with trash receptacles, parking areas, and emergency phone call boxes within the project area for both directions of traffic in the vicinity of the existing roadside table. The final location of the facilities will be determined during design.*”
- ▶ Page 27 – The first sentence of the last paragraph is corrected as follows: “Due to the new R/W required for construction of the selected alternative, a total of ~~588.2~~ *578.9* acres of land on 44 parcels will be permanently incorporated into ADOT R/W (Table 7).”
- ▶ Page 27 – The following is added after the last paragraph: “*For each project design segment, ADOT will coordinate with affected landowners, lease holders, and land managing agencies in order to identify opportunities and develop specific design measures to minimize impacts on livestock/farming operations. Coordination efforts will consist of, but not be limited to, a meeting with affected landowners and/or lease holders during the design kickoff phase, and a follow-up meeting at the 60 percent design phase addressing the concerns identified during the early coordination.*”
- ▶ Page 28 – Table 7 is corrected as follows:

<i>Study Segment</i>	<i>Private</i>	<i>BLM</i>	<i>ASLD</i>	<i>Total</i>
A	37.7 <i>28.4</i>	0.0	0.0	37.7 <i>28.4</i>
B	2.9	0.0	0.0	2.9
C	52.2	0.0	495.4	547.6
<i>Total</i>	92.8 <i>83.5</i>	0.0	495.4	588.2 <i>578.9</i>

- ▶ Page 28 – The first sentence of the last (partial) paragraph is amended to read: “The selected alternative will minimize impacts to adjacent land use by following the existing US 93 alignment, minimizing R/W take from adjacent developed properties, maintaining access to adjacent properties, *coordinating with affected landowners and/or leaseholders*, maintaining or improving livestock crossings...”
- ▶ Page 30 – The following is inserted after the second sentence of the fourth paragraph: “*A mitigation plan will be developed for the project in accordance with COE permitting requirements.*”
- ▶ Page 34 – The fourth sentence of the first full paragraph is corrected as follows: “The project area contains suitable habitat for western burrowing owl south of MP 177.0, where well-drained, level to gently sloping topography with ~~by~~ *sparse* vegetation, bare ground, and abundant small mammal burrows is present.”

- ▶ Page 35 – The last sentence of the third full paragraph is amended to read: “~~During the study scoping phase and subsequent correspondence, In correspondence dated December 1, 2004 (Appendix K), AGFD did not identify any locations within the project area warranting special treatment for wildlife movement, nor request crossings designed exclusively for wildlife identified the Date Creek and Big Jim Wash crossings as locations where movement of wildlife under the bridge crossings should be accommodated.~~”
- ▶ Page 35 – The sixth sentence of the last (partial) paragraph is deleted.
- ▶ Page 36 – The following is inserted after the first (partial) paragraph: “*ADOT will include AGFD in the design partnering process to address wildlife movement issues. During design, AGFD representatives will be requested to provide input in discussions about wildlife opportunities and development of appropriate wildlife-sensitive design measures at locations identified as important for wildlife connectivity and movement, including the Date Creek and Big Jim Wash bridges. In conjunction with the wildlife-sensitive design efforts, further examination of available wildlife strike data for the project area will be conducted.*”
- ▶ Page 38 – The second sentence of the fourth full paragraph is amended to read: “These impacts will be mitigated by salvaging and transplanting native plants, providing instructional materials regarding protection of desert rosy boa and chuckwalla to supervisory construction personnel, conducting a survey for loggerhead shrike nests and western burrowing owl during final design, conducting pre-construction surveys for Sonoran desert tortoise, complying with AGFD guidelines to protect Sonoran desert tortoise during construction, revegetating disturbed areas with salvaged plants and native species seed, providing game fence to accommodate wildlife movement, *coordinating with AGFD to address wildlife connectivity issues and develop wildlife-sensitive design measures*, and preventing the spread of invasive species.”
- ▶ Page 41 – The text of the second bullet point is deleted and replaced with the following: “*The project plans will identify remnants of landforms to be modified to make them appear more natural and to avoid leaving uncharacteristic fin-shaped landforms in the median.*”
- ▶ Page 46 – The first sentence of the last (partial) paragraph is amended to read: “The records search disclosed one permitted hazardous waste handler in the project vicinity, a closed solid waste facility located 0.1 mile north of MP 171 on the west side of US 93, and a diesel fuel spill that occurred in the general vicinity of *the community of Congress* in March 2000.”
- ▶ Page 49, continuing to page 50 – The first sentence of the last (partial) paragraph is updated as follows: “Because the selected alternative will result in impacts to cultural resources sites, a Programmatic Agreement (PA) ~~would be~~ *has been* executed among FHWA, ADOT, BLM, and SHPO in order to identify specific measures to mitigate impacts to cultural resources resulting from construction (Appendix ~~H~~ *K*).”
- ▶ Page 51, continuing to page 52 – The last (partial) paragraph, beginning with the second sentence, is updated as follows: “Impacts to the residents in the project area will consist of R/W acquisition, ~~one~~ *four* residential displacements, and the temporary construction impacts described above. The R/W acquisition and residential displacements will occur *on the east*

side of US 93 due to frontage road construction. The R/W acquisition on the residential parcels will consist of a ~~35~~ 100- to ~~50~~ 350-ft swath of land adjacent to the existing US 93 R/W, as illustrated in Appendix B. Seventeen occupied residential parcels will be affected by R/W acquisition, resulting in R/W takes ranging from 0.2 to ~~1.7~~ 7.0 acres from each parcel. The selected alternative has been developed to avoid the residences built upon the affected parcels to the maximum extent possible within design constraints. ~~One~~ Four residential displacements ~~is~~ are unavoidable due to the proximity of the buildings to the existing US 93 R/W....”

- ▶ Page 53 – The fifth paragraph is updated as follows: “Construction of the selected alternative will require ~~one~~ four residential displacements near the US 93/SR 89 junction and the relocation of two unoccupied mobile homes in the vicinity of the US 93/SR 71 junction. The selected alternative will also require the acquisition of 2.9 acres of land for new R/W on two commercial properties at the US 93/SR 71 junction, ~~but would not result resulting in the one business displacement of the businesses at those locations.~~”
- ▶ Page 54 – The first and second sentences of the last (partial) paragraph are updated to read: “Socioeconomic impacts will result from construction of the selected alternative due to the acquisition of new R/W from private landowners, *business displacement*, and residential displacements. These landowners, *business owners*, and residents will be compensated in accordance with the Uniform Act.”
- ▶ Page 54, continuing to page 55 – The fourth sentence of the last (partial) paragraph is updated as follows: “The project will have a negligible impact on neighborhood continuity; ~~would not require commercial displacements~~, and will not result in a high and adverse impact on any minority group.”
- ▶ Page 67 – The last paragraph is updated as follows: “A public hearing for the ~~preferred alternative is planned for~~ *proposed project was held on* November 17, 2004, from 6:00 to 8:00 pm in the cafeteria of the Wickenburg High School, located at 1090 South Vulture Mine Road. A transcript of the public hearing ~~would be~~ *is* included in ~~the final environmental document Appendix L. In addition, a summary of~~ *The* public comments received following distribution of ~~this~~ *the* DEA and during the public hearing comment period, as well as ADOT responses, ~~would be~~ *are* provided in ~~the final environmental document Appendix M. The comments were generally in support of the proposed improvements. Several landowners and leaseholders expressed concerns about changes in access to their properties and impacts on their livestock/farming operations. Residents of the Vista Royale area expressed concerns about the impact of roadway widening on their community, especially noise. In addition, several comments were submitted requesting that a replacement roadside table facility be included in the project scope. After review of the final study documents...~~”

- ▶ Page 68 – The following section is inserted below the last paragraph:

Continuing Public Involvement Efforts

During design of the selected alternative, ADOT will continue to present opportunities for affected landowners, leaseholders, and area residents to provide information and feedback on the design of the improvements. In order to address the concerns voiced during the public hearing comment period, ADOT will include public coordination and involvement efforts in the design process for this project. In addition to the coordination with affected landowners and leaseholders described on page 27, ADOT will administer a public involvement program for the design segment including the SR 89 junction and Vista Royale area in order to give area residents the opportunity to review and provide input on specific design issues. The program will include, but not be limited to, a meeting with area residents during the design kickoff phase, and a follow-up meeting or newsletter, as appropriate, at the 60 percent design stage addressing the concerns identified during the early coordination.

APPENDICES