

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ENVIRONMENTAL & ENHANCEMENT GROUP

**DRAFT
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

September 2004

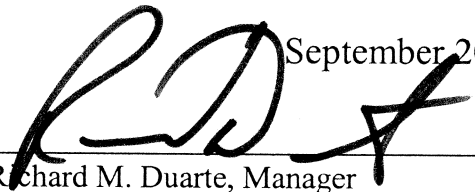
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Approved by:  September 2004 Date: 9-28-04
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Federal Highway Administration

This Draft 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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LIST OF ACRONYMS AND ABBREVIATIONS

acc/MVM	Accidents per million vehicle miles
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADT	Average daily traffic
AGFD	Arizona Game and Fish Department
amsl	Above mean sea level
APE	Area of potential effect
ASLD	Arizona State Land Department
ASM	Arizona State Museum
AZPDES	Arizona Pollutant Discharge Elimination System
BLM	Bureau of Land Management
CBC	Concrete box culvert
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMP	Corrugated metal pipe
CMPA	Corrugated metal pipe arch
CO	Carbon monoxide
COE	US Army Corps of Engineers
dBA	Decibels (A-weighted)
DEA	Draft Environmental Assessment
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ft	Foot/feet
FY	Fiscal year
ICO	Issues, Concerns, and Opportunities
ISA	Initial Site Assessment
L/DCR	Location/Design Concept Report
L _{max}	Maximum noise level
LOS	Level of service
MBTA	Migratory Bird Treaty Act
MP	Milepost
mph	Miles per hour
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NACOG	Northern Arizona Council of Governments
NAFTA	North American Free Trade Agreement
NB	Northbound
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PA	Programmatic Agreement

PISA	Preliminary Initial Site Assessment
ppm	Parts per million
RCP	Reinforced concrete pipe
R/W	Right-of-way
SB	Southbound
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SR	State Route
Uniform Act	Uniform Relocation Assistance and Real Properties Acquisition Act of 1970
USFWS	US Fish and Wildlife Service
UST	Underground storage tank
vpd	Vehicles per day
WIFL	Southwestern willow flycatcher
WSC	Wildlife of Special Concern
YCFCD	Yavapai County Flood Control District

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

- To minimize impacts on adjacent land use, existing cattle crossings under US 93 would be maintained or relocated. To maintain existing cattle crossings, existing box culverts that are 6 feet in height or greater would not be downsized and would be designed to function as cattle passes where feasible. If during design it was determined that the existing cattle passes could not be retained, the Arizona Department of Transportation would 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 would review the project plans to verify the extent of encroachment within the 100-year floodplain and would obtain the required floodplain construction permits from the Yavapai County Flood Control District (page 30).
- During final design, the project plans would be reviewed to verify the extent of encroachment into waters of the US. As appropriate, certifications and permits required under Sections 401 and 404 of the Clean Water Act would be obtained by the Arizona Department of Transportation prior to construction (page 30).
- The Arizona Department of Transportation Roadside Development Section would determine who would prepare the Storm Water Pollution Prevention Plan (page 30).
- A survey for loggerhead shrike nests would be performed by a qualified biologist during final design. The survey would be conducted in areas that would be disturbed by construction activities and are located on or within one mile of Bureau of Land Management lands. If loggerhead shrike nests were found, the Arizona Department of Transportation would coordinate with the Bureau of Land Management regarding potential impacts to the species (page 34).
- A survey for western burrowing owls would be performed by a qualified biologist during final design. The survey would be conducted in areas that would be disturbed by construction activities and are located on or within one mile of Bureau of Land Management lands. If western burrowing owls were found, the Arizona Department of Transportation would 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 would 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 Roadside Development Section would 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 were 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, would be developed by the Arizona Department of Transportation Roadside Development Section during final design. Healthy, salvageable native plants within the area of disturbance would be salvaged and transplanted to the extent practicable to replicate the surrounding vegetative density (page 37).
- Disturbed areas would be seeded with a seed mix consisting of native species selected for the site and would be revegetated with salvaged plants. During final design, the Arizona Department of Transportation would develop the seed mix. Revegetation plans would 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 would survey the project area for invasive species. If invasive species were found, the Arizona Department of Transportation Natural Resources Section would treat these species according to an invasive species management plan and any necessary treatments would continue following completion of construction (page 38).
- During final design, the variable-width median and roadway centerline would be located to minimize visual impacts and maximize travelers' experience within the Joshua Forest Scenic Road (page 40).
- Vegetation within the median area would be protected in-place to the extent possible in areas where the median width would be greater than 84 feet (page 40).
- The cottonwood trees located in the vicinity of milepost 166.8 would be protected in-place (page 40).
- Seeding of disturbed areas would occur in a progressive manner as the slopes were completed (page 40).
- Newly exposed rock faces would 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 would be left in place after construction if they were determined to be stable; would blend into the surrounding terrain; and would 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 would 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 would 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 would 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 (page 41).
- Any riprap material would blend with the surrounding rock and exposed soil color (page 41).
- Erosion control matting would be composed of a natural, earth-tone material (page 41).
- During final design, the Arizona Department of Transportation would 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 would 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, would be installed to blend with the landscape (page 41).
- During final design, copies of the construction documents would 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 would be used to identify site-specific measures to reduce impacts to visual resources (page 41).
- All asphalt not reused as part of the project would be removed from the site or incorporated into roadway embankments under a minimum of 3-foot cover, and the roadbed would be reshaped, scarified, and revegetated. All abandoned sections of old roadway would 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, would be limited to those essential to ensure efficient traffic operations (page 41).
- If possible, any new roadway signs would be placed to avoid obstructing northbound motorists' views of the Shiprock formation between mileposts 166.0 and 164.0. The Arizona Department of Transportation would field-verify the placement of roadway signs before installation (page 41).
- An Initial Site Assessment would 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 would be implemented based on the results of the assessment (page 47).
- During final design, the Arizona Department of Transportation would conduct assessments to determine the presence of asbestos within any bridge structure that would be altered or modified as a result of construction. The Arizona Department of Transportation would 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 would be fully satisfied prior to the beginning of construction (page 49).

Prescott and Kingman District Responsibilities

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

Contractor Responsibilities

- Permanent cross-drainage structures would be installed at the earliest possible phase of construction to minimize potential erosion throughout the duration of construction (page 30).
- The contractor would submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality (page 30).
- The contractor would 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 would be conducted by a qualified biologist 15 days prior to the beginning of construction in areas of suitable tortoise habitat that would be disturbed (page 34).
- Because Sonoran desert tortoises occur within the project area, the contractor would comply with the Arizona Game and Fish Department's Tortoise Handling Guidelines included in Appendix D if specimens were encountered during construction (page 34).
- The contractor would salvage and replant native plants within the area of disturbance in accordance with the plant salvage and revegetation plans (page 37).
- Disturbed areas would be seeded with a seed mix consisting of native species selected for the site and would be revegetated with salvaged native plants (page 37).
- All earth-moving and hauling equipment would 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 were found within the project area, the contractor would 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 would stake the clearing limits for Arizona Department of Transportation Engineer's approval prior to the start of clearing. These limits would be irregular where possible, and straight clearing lines would 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 would remove trees only when specifically authorized to do so by the Arizona Department of Transportation Engineer and would protect in-place the vegetation outside the specified clearing limits (page 40).
- Vegetation within the median area would be protected in-place to the extent possible in areas where the median width would be greater than 84 feet (page 40).
- The contractor would protect in-place the cottonwood trees located in the vicinity of milepost 166.8 (page 40).
- Seeding of disturbed areas would occur in a progressive manner as the slopes were completed (page 40).
- Any riprap material would blend with the surrounding rock and exposed soil color (page 41).
- Erosion control matting would be composed of a natural, earth-tone material (page 41).
- The contractor would protect in-place existing rock and landforms outside the clear zone during construction (page 41).
- All asphalt not reused as part of the project would be removed from the site or incorporated into roadway embankments under a minimum of 3-foot cover, and the roadbed would be reshaped, scarified, and revegetated. All abandoned sections of old roadway would be obliterated and made to blend with the existing landscape (page 41).
- If asbestos and/or heavy-metal materials were found as a result of the assessments of bridge structures conducted by the Arizona Department of Transportation, the contractor would 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 would obtain any permits required for demolition of the structures or disposal of the asbestos or heavy-metal materials (page 47).

