

# Draft Environmental Assessment

## West Kingman Traffic Interchange

Interstate 40 MP 48.32 to MP 51.75 (Stockton Hill Road)

US Route 93 MP 69.60 to MP 71

Mohave County, Arizona

Federal Aid No. 040-A(212)N

ADOT (TRACS) No. 040 MO 048 H7993 01L

May 2020



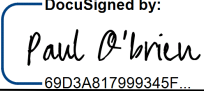
The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by the Arizona Department of Transportation pursuant to 23 United States Code 327 and a Memorandum of Understanding dated April 16, 2019, and executed by the Federal Highway Administration and the Arizona Department of Transportation.

# Draft Environmental Assessment for West Kingman Traffic Interchange

Mohave County, Arizona

Federal Aid No. 040-A(212)N  
ADOT Project No. 040 MO 048 H7993 01L

May 2020

Approved by:  Date: 5/6/2020  
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*This environmental assessment has been prepared in accordance with provisions and requirements of Title 23 Code of Federal Regulations Parts 771 and 774, relating to the implementation of the National Environmental Policy Act of 1969 [42 United States Code 4332(2)(c)].*

*The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by the Arizona Department of Transportation pursuant to 23 United States Code 327 and a Memorandum of Understanding dated April 16, 2019, and executed by the Federal Highway Administration and the Arizona Department of Transportation.*

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***Please note that the Technical Reports associated with this project can be viewed at:  
<https://www.azdot.gov/WestKingmanTIP>***

## List of Abbreviations and Acronyms

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AADT	average annual daily traffic
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AGFD	Arizona Game and Fish Department
APE	area of potential effects
ASM	Arizona State Museum
ASTM	American Society for Testing and Materials
AZ	Arizona
AZPDES	Arizona Pollutant Discharge Elimination System
BE	Biological Evaluation
BLM	Bureau of Land Management
BLM-S	BLM Sensitive Species
BMPs	Best Management Practices
CAA	Clean Air Act of 1970
CAAA	Clean Air Act Amendments
CCA	Candidate Conservation Agreement
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFRA	Cerbat Foothills Recreation Area
CO	carbon monoxide
Corps	United States Army Corps of Engineers
CWA	Clean Water Act of 1972
dB	decibel
dba	A-weighted decibel
DCR	Design Concept Report
DEA	Drug Enforcement Agency
EA	Environmental Assessment
EB	eastbound
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act of 1973
FAST	Fixing America’s Surface Transportation Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration

GHG	greenhouse gas
HDMS	Heritage Data Management System
I-11	Interstate 11
I-40	Interstate 40
IPaC	Information for Planning and Consultation
JD	jurisdictional delineation
KOP	key observation points
LE	listed endangered
LEP	limited English proficiency
LOS	level of service
LT	listed threatened
MBTA	Migratory Bird Treaty Act of 1918
MP	milepost
mph	miles per hour
MS4	Municipal Separate Storm Sewer Systems
MSAT	Mobile Source Air Toxics
N/A	not applicable
NAR	Noise Abatement Requirements
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NB	northbound
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act of 1966
NO <sub>2</sub>	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O <sub>3</sub>	ozone
PA	Programmatic Agreement
Pb	lead
PM <sub>10</sub>	particulate matter less than or equal to 10 microns in diameter
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 microns in diameter
ppb	part per billion
ppm	parts per million
RMP	Resource Management Plan
ROW	right-of-way



SB	southbound
SGCN	Arizona Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
STIP	State Transportation Improvement Program
SWPPP	Stormwater Pollution Prevention Plan
TI	traffic interchange
U.S.	United States
US 93	U.S. Route 93
U.S.C.	United States Code
USDOT	U.S. Department of Transportation
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
VRM	visual resource management
WACOG	Western Area Council of Governments
Waters	Waters of the United States
WB	westbound
µg/m <sup>3</sup>	micrograms per cubic meter
XN	experimental, non-essential population
°F	degrees Fahrenheit
°C	degrees Celsius
1A	Vulnerable as determined by SGCN categories and matches one of several criteria under the State Wildlife Action Plan
1B	Vulnerable as determined by SGCN categories but does not match any criteria

## Environmental Commitments

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Arizona Department of Transportation (ADOT) and the Contractor shall follow the Federal laws and regulations, guidelines, and ADOT's Standards and Specifications listed below to avoid, minimize, and mitigate impacts for all relevant environmental resources:

- ADOT 2017 Noise Abatement Requirements
- ADOT Clean Water Act Section 404/401 Guidance Manual
- ADOT Erosion and Pollution Control Manual
- ADOT Guidelines for Highways on Bureau of Land Management and US Forest Service Land
- ADOT NEPA EA and EIS Guidance
- ADOT Public Involvement Plan
- ADOT Right of Way Procedures Manual
- ADOT Roadside Vegetation Management Guidelines
- ADOT Standard Specifications for Road and Bridge Construction
- ADOT Temporary Traffic Control Design Guidelines
- Bureau of Land Management – ADOT Memorandum of Understanding • City of Kingman  
Municipal Code Section 5-7(a)
- SAF-6.01 Asbestos Management Policy
- Title VI of the Civil Rights Act of 1964
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Uniform Relocation Act Amendments of 1987

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## Mitigation Measures

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The following mitigation measures are not subject to change without prior written approval from ADOT Environmental Planning. These mitigation measures would be updated as required in the Final EA and in any final design stages of the project.

### ADOT Design Responsibilities

- Floodplain impacts would be coordinated with the Mohave County Flood Control District manager at 928.757-0925, who would be provided an opportunity to review and comment on the design plans.
- The Arizona Department of Transportation would prepare and submit an application to the United States Army Corps of Engineers (Corps) for a Clean Water Act Section 404 permit for the project.
- No work would occur within jurisdictional Waters of the United States (Waters) until the appropriate Clean Water Act Section 404 permit and Section 401 Water Quality Certification are obtained.
- Prior to construction, a regulatory file review should be conducted by a qualified Hazardous Materials professional for a recently identified leaking UST at Woody's Food Store #131 located at 1000 West Beale Street to determine whether additional work is required. File review is to be submitted to the hazardous materials coordinator at [egreen@azdot.gov](mailto:egreen@azdot.gov) for review and approval.
- No disturbance to the yellow striping paint on Clack Canyon Road parallel to the Clack Canyon Wash bridges will occur until the lead-based paint Removal and Abatement Plan is approved and implemented.
- ADOT will coordinate with the Bureau of Land Management throughout the design and construction phases of the project to determine any measures needed to address visual or other impacts resulting from the project on Bureau of Land Management land.

### ADOT District Responsibilities

- ADOT will coordinate with the Bureau of Land Management throughout the design and construction phases of the project to determine any measures needed to address visual impacts resulting from the project on Bureau of Land Management land.
- The Mohave County floodplain manager at 928.757-0925 would be provided an opportunity to review and comment on the design plans.
- No work would occur within jurisdictional Waters of the United States until the appropriate Clean Water Act Section 404 permit and Section 401 Water Quality Certification are obtained.
- The Arizona Department of Transportation would prepare and submit an application to the Corps for a CWA Section 404 permit for the project.
- If any active bird nests cannot be avoided by vegetation clearing or construction, the Engineer will contact the Environmental Planning Biologist (602-712-7134 or 602-341-9331) to evaluate the situation.

- The Engineer will provide Sonoran Desert tortoise survey results to the Arizona Department of Transportation Environmental Planning biologist (email: bioteam@azdot.gov or 602-712-7134/602-341-9331).
- The contractor shall complete a National Emission Standards for Hazardous Air Pollutants notification for the work associated with the I-40 reinforced corrugated metal pipe culvert near Milepost 48.3, West Kingman Traffic Interchange Overpass Eastbound/Westbound Structure #s 1835/1836, Clack Canyon Wash Bridges Eastbound/Westbound Structure #s 1837/1838, White Cliff Road Overpass Eastbound/Westbound Structure #s 1839/1840, and US 93 RCB near Milepost 70.3 and submit it to the Engineer, who shall submit it to the ADOT Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for a five (5) working day review and approval. Upon approval, the contractor shall file the notification with the Arizona Department of Environmental Quality at least ten (10) working days prior to the commencement of work associated with the Overpasses, bridges, and drainage structures within the project limits.

#### **ADOT Roadside Development Responsibilities**

- 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.
- The Arizona Department of Transportation Roadside Development Section will provide special provisions for the control of noxious and invasive plant species during construction that may require treatment and control within the project limits.

#### **Contractor Responsibilities**

- The contractor would contact the ADOT Environmental Planning Historic Preservation Team (602.712.6371 or 602.712.7767) 14 days prior to construction to ensure that the terms and stipulations of the project-specific Programmatic Agreement have been fulfilled.
- Where feasible, noise barriers required as mitigation measures would be constructed as early as possible in the construction phasing to shield adjacent properties from construction-related noise.
- No work would occur within jurisdictional Waters of the United States until the appropriate Clean Water Act Section 404 permit and Section 401 Water Quality Certification are obtained.
- The contractor shall comply with all terms and conditions of the applicable Section 404 Permit and Section 401 Water Quality certification, certified by the Arizona Department of Environmental Quality.
- 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 lists 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 duration of construction and any landscape establishment period, 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, all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris, including plant parts, soil and mud, prior to the equipment entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil and mud, prior to leaving the construction site.
- If vegetation clearing will occur during the migratory bird breeding season (March 1 - August 31), the contractor shall avoid any active bird nests. If the active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1- February 28) vegetation removal is not subject to this restriction.
- The contractor shall employ a qualified biologist with necessary scientific collecting permit(s) to conduct a preconstruction survey for the Sonoran Desert tortoise.
- At least 10 (ten) days prior to construction or any ground-disturbing activities, the contractor will arrange for a qualified biologist with experience handling Sonoran Desert tortoises to conduct a pre-construction survey for the Sonoran Desert tortoise or potential tortoise burrows.
- No construction including pre-construction ground-disturbing activities shall begin until a qualified biologist has completed a survey for the presence of Sonoran Desert tortoises or potential desert tortoise burrows.
- 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, become familiar with the identification and avoidance of the Sonoran Desert tortoise, and follow the notification request, as applicable.
- The contractor shall require all on-site workers to check under their parked vehicles and equipment prior to driving to make sure there isn't a tortoise sheltering underneath the vehicle or piece of equipment. If a desert tortoise is found sheltering underneath a parked vehicle or piece of equipment, the tortoise shall be allowed to move out from under the vehicle on its own or be relocated following the current guidelines for Sonoran Desert tortoise handling before the vehicle can be moved.
- 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." If any tortoise is encountered during construction the contractor shall notify the Engineer to report the encounter.

- 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: bioteam@azdot.gov) within 24 hours of the encounter. Photographs should be taken of tortoises encountered and included in the report if possible.
- Due to the potential for the bridge joints for the West Kingman TI Overpass Eastbound/Westbound Structure #s 1835/1836, Clack Canyon Wash Bridges Eastbound/Westbound Structure #s 1837/1838, and White Cliff Road Overpass East Bound/West Bound Structure #s 1839/1840 having lead-based paint (>HUD/EPA levels) waste material generated prior to the removal of the bridge joints shall be properly disposed of in accordance with all applicable federal, state, and local regulations.
- The contractor shall complete a National Emission Standards for Hazardous Air Pollutants notification for the work associated with the I-40 reinforced corrugated metal pipe culvert near Milepost 48.3, West Kingman Traffic Interchange Overpass Eastbound/Westbound Structure #s 1835/1836, Clack Canyon Wash Bridges Eastbound/Westbound Structure #s 1837/1838, White Cliff Road Overpass Eastbound/Westbound Structure #s 1839/1840, and US 93 reinforced concrete barrel near Milepost 70.3 and submit it to the Engineer, who shall submit it to the ADOT Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for a five (5) working day review and approval. Upon approval, the contractor shall file the notification with the Arizona Department of Environmental Quality at least ten (10) working days prior to the commencement of work associated with the Overpasses, bridges, and drainage structures within the project limits.
- For striping paint obliteration:
  - An approved contractor shall develop and implement a Lead-Based Paint Removal and Abatement Plan for the removal of the lead-based paint, Toxicity Characteristic Leaching Procedure testing of the generated waste stream, and proper disposal of the waste stream derived from the removal of the Clack Canyon Road old yellow striping paint parallel to the Clack Canyon Wash bridges within the project limits. The contractor shall select a lead abatement contractor that meets the qualification requirements specified within the special provisions and as approval by the Engineer. The contractor shall follow all applicable federal, state, and local codes and regulations, including Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2008 Edition), related to the treatment and handling of lead-based paint.
  - The contractor shall submit a Lead-Based Paint Removal and Abatement Plan for the removal of the Clack Canyon Road old yellow striping paint parallel to the Clack Canyon Wash bridges within the project limits to the Engineer and the Arizona Department of Transportation Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for review and approval at least 10 (ten) working days prior to paint striping obliteration activities.

- No paint obliteration of the Clack Canyon Road old yellow striping parallel to the Clack Canyon Wash bridges shall occur until the Lead-Based Paint Removal and Abatement Plan is approved by the Arizona Department of Transportation Environmental Planning hazardous materials coordinator and implemented.
- Visible fugitive dust emissions from paint removal shall be controlled through wet or dry (e.g., vacuum) means during the removal process. If the liquid waste stream generated by a water-blasting obliteration method passes the Toxicity Characteristic Leaching Process analysis, it may be used as a dust palliative or for compaction on the project. If the water is not used on the project, it shall be properly disposed of in accordance with all applicable federal, state, and local regulations.
- No disturbance to the yellow striping paint on Clack Canyon Road parallel to the Clack Canyon Wash bridges will occur until the lead-based paint Removal and Abatement Plan is approved and implemented.
- The contractor shall not utilize any abrasive tools or methods for the removal of the painted drainage grates that would disturb the lead-based paint. This includes, but is not limited to, sawing, grinding, sanding, or heating. Woven straps (not linked chains) may be used to lift the drainage grate from the frame. The drainage grates, due to the lead-based paint, must be disposed in accordance with all applicable federal, state, and local regulations.
- For milling activities, the roadway surface preceding the milling machine shall be kept sufficiently wet so as to prevent the generation of any visible fugitive dust particles, but not so wet as to cause excess runoff from the roadway surface onto the roadway shoulder.

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## I.

## Introduction

### A. Explanation of an Environmental Assessment

This Draft Environmental Assessment (EA) for the construction of the West Kingman Traffic Interchange (TI), an improved connection between Interstate 40 (I-40) and United States (U.S.) Route 93 (US 93), was prepared in accordance with the National Environmental Policy Act (NEPA), as amended (42 United States Code [U.S.C.] 4321 et seq.) and Council on Environmental Quality (CEQ) regulations that implement NEPA (40 Code of Regulations [CFR]) 1500 – 1508).

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project have been carried out by ADOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated April 16, 2019 and executed by the Federal Highway Administration (FHWA) and ADOT.

For the preparation of the EA, ADOT invited the Bureau of Land Management (BLM) and the United States Army Corps of Engineers (Corps) to be a cooperating agency on December 5, 2019 (Appendix A). BLM's Kingman Field Office manages land in the project vicinity, including portions of the Cerbat Foothills Recreation Area (CFRA) adjacent to US 93. The BLM did not formally respond to the letter; ADOT continues to work with them as a participating agency. Drainages within the project area may be within the purview of the Corps and require a permit to regulate the discharge of fill into jurisdictional waters. In a letter dated December 5, 2019, the Corps accepted ADOT's invitation to be a cooperating agency (Appendix A).

According to CEQ regulations (40 CFR 1508.9), the basic function of an EA is to describe the need for a proposed action, alternatives for implementing or constructing a proposed action, and the environmental impacts of a proposed action and alternatives. This document serves as a tool for ADOT to identify potentially significant impacts associated with the proposed action on social, economic, natural, and environmental resources and measures to avoid, minimize, and mitigate such impacts. The Draft EA provides the basis for ADOT to determine whether to issue a Finding of No Significant Impact (FONSI) or whether to prepare an Environmental Impact Statement (EIS). The Draft EA also summarizes the public participation process. Appendix B of this EA provides a list of agencies and persons consulted.

### B. Project Location

The project is located in the City of Kingman and in Mohave County, Arizona, where I-40 intersects US 93 at Beale Street, also known as the West Kingman TI. The project limits extend approximately 3.4 miles along I-40 from milepost (MP) 48.32 to MP 51.75 (Stockton Hill Road), approximately 1.4 miles along US 93 from MP 69.60 to approximately MP 71.00 and incorporates a new connection between I-40 MP 49.5 and US 93 MP 70 (Figures 1 and 2). The project area includes portions of Sections 12, 13, 14, 15, 22, and 23 of Township 21 North, Range 17 West and Section 7 of Township 21 North, Range 16 West of the Gila and Salt River Baseline and Meridian.



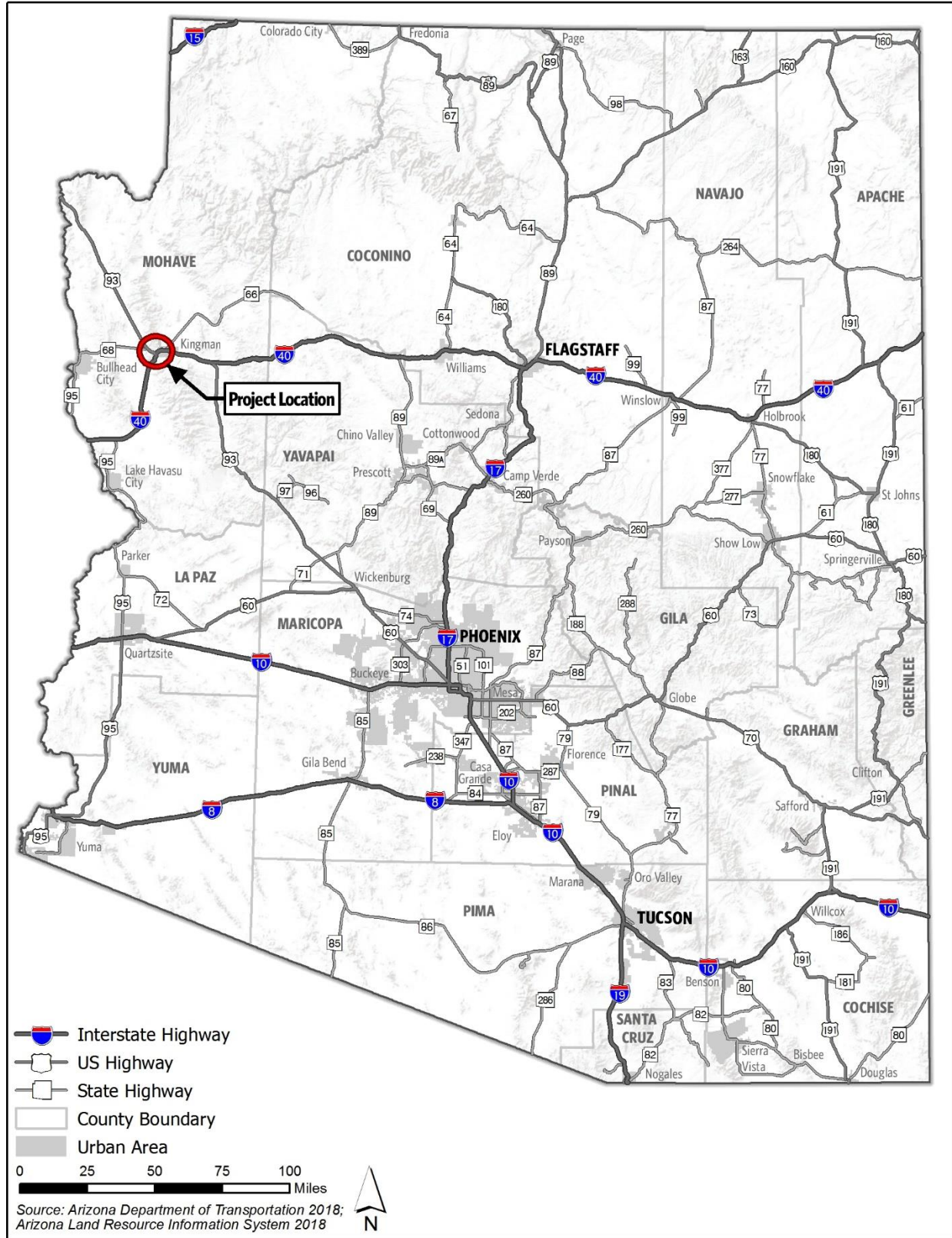


Figure 1. Project Location

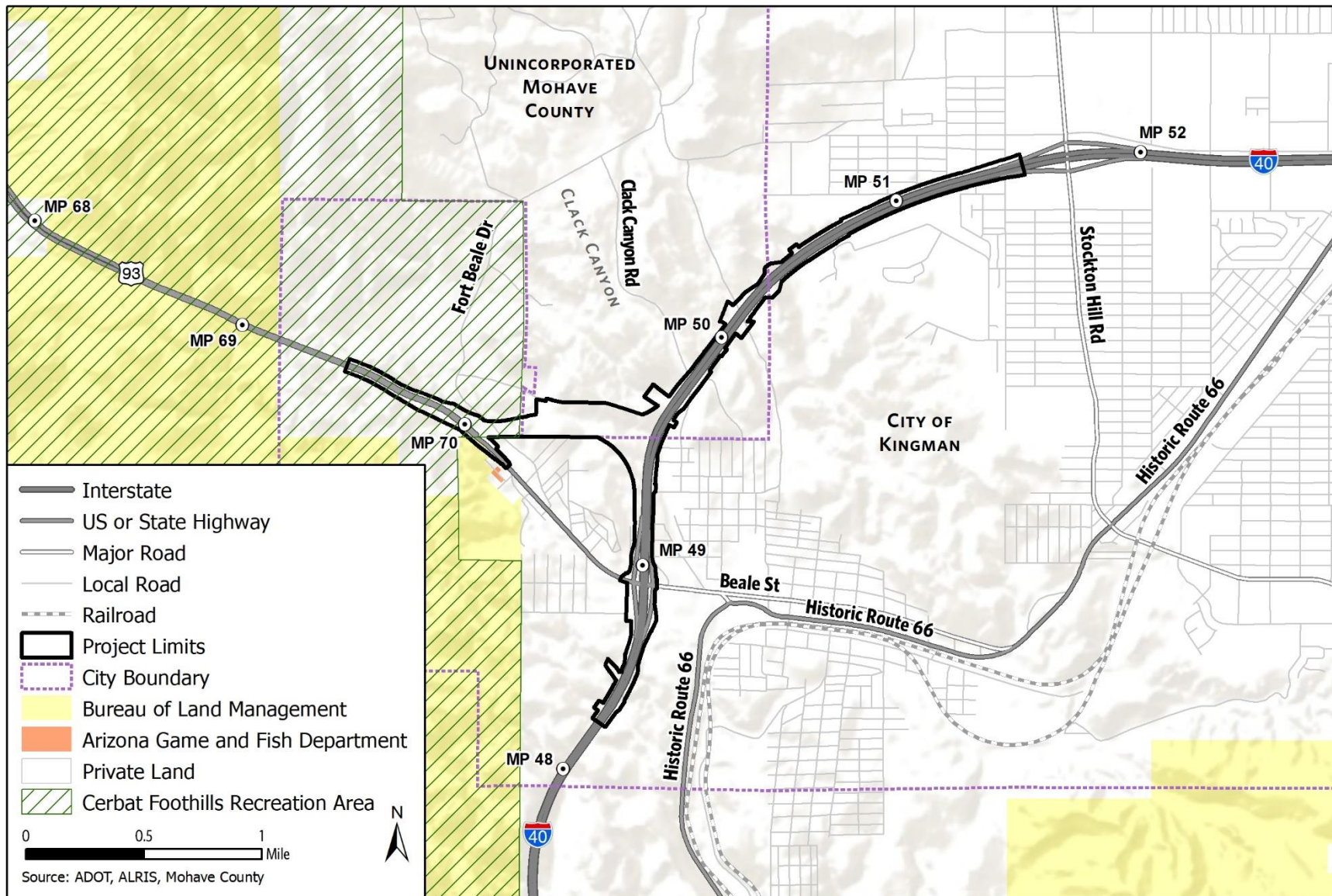


Figure 2. Project Vicinity

Throughout this EA, the term “project limits” is used to represent the proposed construction footprint (area of disturbance), while the term “project vicinity” also a more expansive regional context that includes surrounding lands, outside but adjacent to the project limits.

### C. Project Background and Overview

I-40 is a major east-west full access-controlled interstate freeway that runs between California and North Carolina. It is a divided, four-lane Urban/Rural Interstate through the project area with a posted speed limit of 75 miles per hour (mph). US 93 is a north-south highway that originates in Wickenburg, Arizona and terminates at the Canadian Border in Montana. Within the project limits, US 93 between MP 70 and the junction with I-40 is an urban arterial street (Beale Street) with a posted speed limit of 35 mph.

Between MP 67 and MP 70, US 93 is classified as a Rural Arterial and has a posted speed limit that varies between 35 and 65 mph. US 93 becomes Interstate 11 (I-11) at the Nevada state line and will be subsumed by I-11 once planned upgrades to US 93 and I-40, including this TI, are constructed in Arizona.

US 93 and I-40 are an important connection for the road system that connects Canada to Mexico and these routes through the project limits will be designated as I-11. This route ultimately contributes to significant commerce, tourism, and international trade opportunities across the western United States. The highway system within the project limits is an important corridor for the movement of people and goods, and efficient operations through the system interchange are essential.

Preliminary discussions and strategies for the I-40/US 93 connection have been documented in various reports since the mid-1990s and are summarized in Table 1.

In 2015, the Working Draft EA and Design Concept Report (DCR) were placed on hold because funding was not available for the project. In 2016, interim improvements were completed under a different project (TRACS No. H8744) to address the most critical needs at the Beale Street TI. In 2019, ADOT reviewed the existing body of research previously prepared for the I-40/US 93 TI and began developing a new alternative based on current standards and conditions in the project area. ADOT held community open house meetings during the summer of 2019 to share the updated design with the public and agencies and will continue to update the public in 2020 as the project advances (see Section V). A public hearing presenting the results of the current study, including the recommendation of a preferred alternative, is anticipated in spring 2020.

**Table 1. Previous Studies of the I-40/US 93 Connection**

Study	Summary
Final Project Assessment for the West Kingman TI Project (ADOT 1993)	The assessment identified operational concerns for the interchange, noting substantial queuing for southbound (SB) US 93 traffic turning northbound onto US 93 and for the westbound (WB) I-40 off-ramp turning onto NB US 93. Recommendations included interim improvements to widen the existing Beale Street TI and longer-term vision to construct a free flow I-40/US 93 interchange.
US 93 Multi-Modal Corridor Profile Study (ADOT 1996)	The study recommended a connection that departs I-40 midway between Beale Street and Stockton Hill Road heading west, tying into US 93 north of the commercial developments along Beale Street.
I-40 Multi-Modal Corridor Profile Study (ADOT 1999)	Citing population growth and tourism, the study identified the need for a “bypass” or “freeway type interchange” to alleviate congestion on the I-40 mainline and I-40/US 93 interchange. The study recommended realigning US 93 to a fully directional interchange with I-40 located east or west of the Beale Street interchange.
I-40/US 93 West Kingman TI Final Feasibility Report (ADOT 2009)	The feasibility report reiterated growth projections for the project vicinity and identified the Beale Street TI as one of three “bottleneck” locations on US 93/future I-11. The other two bottleneck locations, one at the Hoover Dam in Nevada and the other in Wickenburg, Arizona have already been addressed with transportation improvements.
Alternatives Selection Report (ADOT 2012a)	The Alternatives Selection Report identified 10 corridors for a new system interchange and access-controlled connector between I-40 and US 93. The corridors were evaluated based on engineering, environmental, right-of-way needs, preliminary cost estimates, and traffic operational criteria.
Change of Access Report (ADOT 2012b)	The Change of Access Report documented ADOT’s request to FHWA for a new interstate access point pursuant to FHWA’s interstate criteria, considerations, and requirements.
I-40/US 93 West Kingman System TI Draft Design Concept Report (ADOT 2015b)	The Draft DCR and a Working Draft EA identified two corridor alternatives that would fulfill the concepts previously studied by creating an interchange between I-40 and US 93 midway between Stockton Hill Road and Beale Street and connecting to US 93 west of the commercial area on Beale Street. These studies were not finalized or approved.

## II.

## Project Purpose and Need

This purpose and need chapter has been prepared based on CEQ NEPA regulation (40 CR 1502.13), FHWA NEPA regulations (23 CFR 771), ADOT NEPA EA and EIS Guidance, and CEQ and FHWA guidance, including FHWA Technical Advisory T 6640.8A. This section provides a baseline and the fundamental reasons for the development of alternatives that will help the evaluation and selection of a recommended alternative.

### A. Purpose

The purpose of the West Kingman TI project is to reduce congestion, improve local access, and enhance operational efficiency between I-40 and US 93.

### B. Need

US 93 is an important segment of the regional transportation infrastructure, moving people and goods between Phoenix and Las Vegas. The existing stop-controlled diamond intersection does not allow the free-flow movement needed to facilitate the regional connection between two interstate highways, I-40 and US 93. Improvements are needed to address Local access and congestion and enhance operational elements of the interchange.

#### *Need Based on Local Access and Congestion*

I-40 and US 93 are currently connected at a stop light-controlled TI. On both sides of I-40, Beale Street (US 93) functions as an urban arterial roadway providing direct access to local businesses and residential neighborhoods. The I-40/US 93 intersection experiences substantial seasonal and day of the week fluctuations in traffic volumes as a result of weekend travel, particularly holiday weekend travel. The interim improvements described in the 2015 Draft DCR have already been constructed, and included modified lane configurations, traffic control, and optimized signal timing to reduce delays and improve levels of service for the dominant movements for vehicles traveling between Phoenix and Las Vegas.

In addition, I-40 and US 93 are an important part of the corridor used to ship goods between Canada and Mexico. As the United States expands its trade relationships with Canada and Mexico, the amount of goods transported has grown significantly. As a result, there is a high percentage of truck traffic that uses this corridor, and consequently travel through the project area. Trucks and regional traffic exiting onto Beale Street en route to either I-40 or US 93 combine with local traffic, resulting in congestion and delays. The many trucks further affect local traffic and congestion due to the size of the rigs affecting available queueing space and slower acceleration, and increased waiting time at traffic signals.

The 2015 Draft DCR and the 2014 supporting traffic analysis prepared for the I-40/US 93 project vicinity predicts that traffic would continue to increase due to population growth and future development. The Mohave County population is expected to increase from 200,186 in 2010 to 268,144 by 2040, while the population of Kingman, the county seat, is expected to increase from 28,068 to 38,266 during that same time period (U.S. Bureau of the Census 2010a; Office of Economic Opportunity 2018). In keeping with this growth, between 2019 and 2040, daily traffic is expected to increase by approximately 70 percent within

the project vicinity (ADOT 2020a). The existing roadway and interchanges can accommodate the predicted traffic volumes through 2026. Beyond 2026, additional improvements would be required to prevent congestion and traffic delays. Congestion in and around the Kingman area would result in increased travel times for local and regional motorists and negatively impact interstate movement.

### Need Based on Traffic Operations

Level of service (LOS) is a qualitative measure to evaluate traffic congestion or operational efficiency. LOS describes operational conditions based on speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. LOS designations range from A (little congestion or free-flow conditions) to F (severe congestion). When conditions drop below the target LOS, traffic flow has deteriorated and results in uneven traffic speeds, delays, and congestion (Figure 3).

ADOT guidelines indicate LOS D or better for urban/fringe urban areas on an interstate highway. Traffic counts were recorded in 2011 for the traffic analysis completed in 2014 to support the 2015 Draft DCR. Traffic counts were recorded in 2011 to determine design peak hour (Friday afternoon) for the traffic analysis completed in 2014 to support the 2015 Draft DCR. To update the traffic analysis to current conditions, ADOT's 2017 average annual daily traffic volumes (AADT) were projected to 2019 using an annual growth rate of 2.3 percent. Figure 4 depicts the LOS for existing peak hour (2019) conditions at the Beale Street TI. The TI currently operates at LOS D or better. Figure 5 uses traffic projections to predict LOS for the 2040 design year. In 2040, several turning movements, through lanes, and ramps would operate at LOS F. With a decline from LOS D to LOS F, the TI would fail to function as intended. Additional improvements would be required at the Beale Street TI to achieve LOS D or better.

With the current configuration, I-40 WB off-ramp traffic backs up on WB I-40. Based on crash data for I-40 (MP 47 to MP 52) and US 93 (MP 67 to MP 72) for the most recent five-year period (January 1, 2014 to December 31, 2018), approximately one-third to one-half of the crashes were related to the Beale Street TI intersection and Beale Street TI ramps.

### C. Need Summary

- **Local Access and Congestion:** Beale Street is not access controlled and serves both local and regional traffic. Despite the recent interim improvements, regional traffic volumes continue to negatively affect access, which slows or stops both local traffic and north-south regional and interstate traffic. The regional traffic consists a high percentage of truck traffic, which further affects local traffic and congestion due to the size of the rigs and slower rate of acceleration. Local

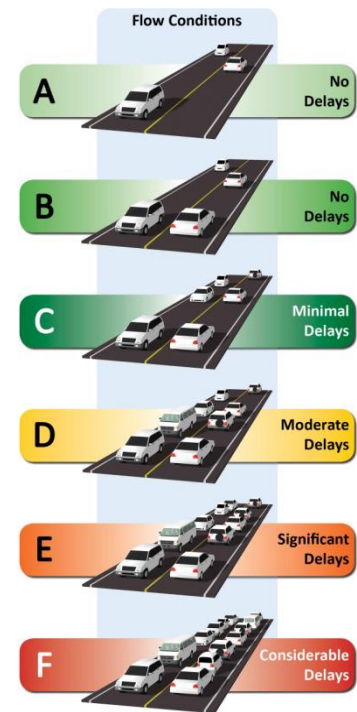
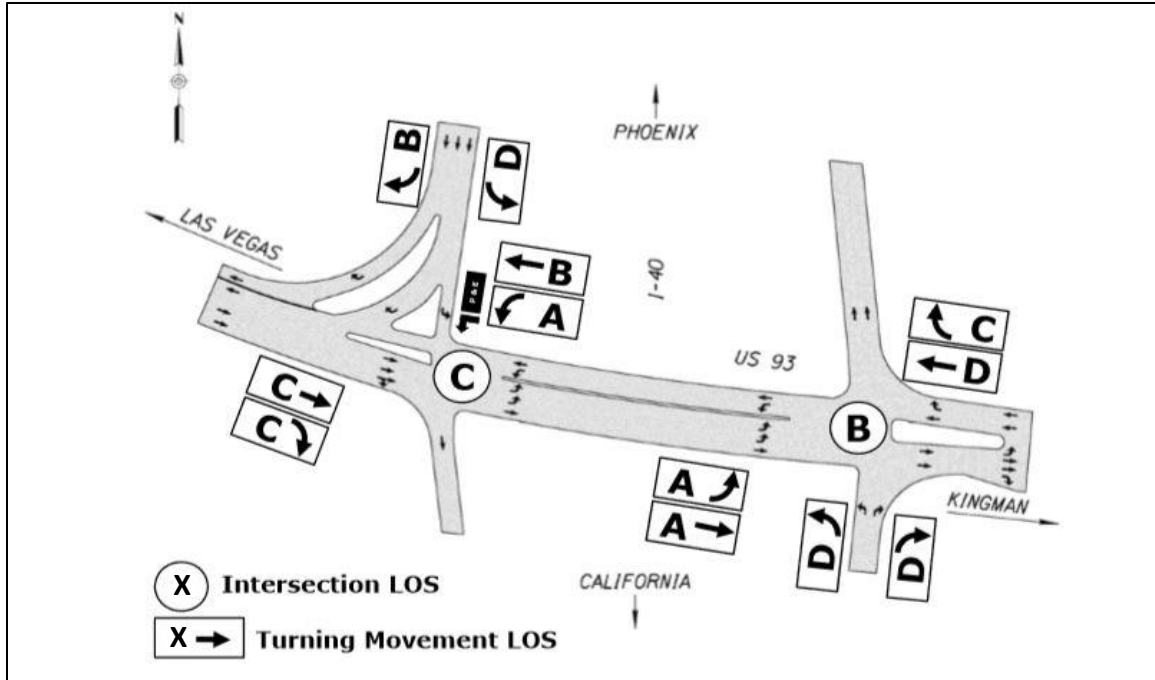
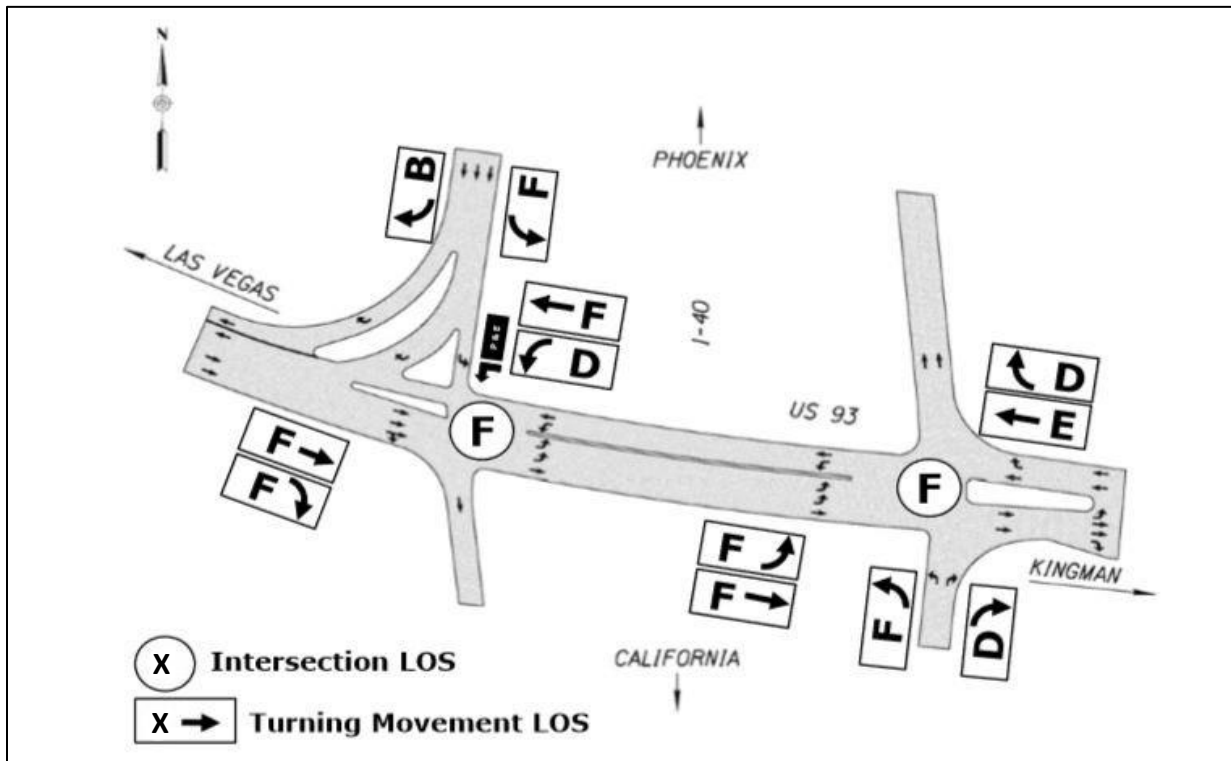


Figure 3. Level of Service



Source: West Kingman TI Draft Design Concept Report, 2015

**Figure 4. 2019 Existing Peak Hour Conditions at the Beale Street TI**



Source: West Kingman TI Draft Design Concept Report, 2015

**Figure 5. Projected 2040 Peak Hour Conditions at the Beale Street TI**

traffic volumes are predicted to increase due to population growth and future development. Congestion in and around the Kingman area would result in increased travel times for local and regional motorists by 2026. A free-flow I-40/ US 93 connection is needed to prevent traffic congestion and improve the operation of the interchange.

- Traffic Operations: Currently, the Beale Street TI operates at LOS D or better. By 2040, several turning movements, through lanes, and ramps would operate at LOS F. With a decline from LOS D to LOS F, the TI would fail to function as intended. Additional improvements are required at the Beale Street TI to achieve LOS D or better. Finally, the I-40 WB off-ramp traffic backs up on WB I-40. With the current configuration, I-40 WB off-ramp traffic backs up on WB I-40. Based on crash data for I-40 (MP 47 to MP 52) and US 93 (MP 67 to MP 72) for the most recent five-year period (January 1, 2014 to December 31, 2018), approximately one-third to one-half of the crashes were related to the Beale Street TI intersection and Beale Street TI ramps.

#### **D. Conformance with Regulations, Land Use Plans, and Other**

The West Kingman TI project conforms with the following plans and policies:

- What Moves You Arizona Final Long-Range Transportation Plan, 2016-2040 (ADOT 2018)
- ADOT Five-Year Transportation Facilities Construction Program FY 2020-2024 (ADOT 2019a)
- Kingman Resource Area Proposed Resource Management Plan and Final EIS (BLM 1993)
- Cerbat Foothills Recreation Area Management Plan (BLM et al. 1995)
- City of Kingman General Plan Update 2030 (City of Kingman 2014)

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### III.

## Alternatives

As identified in 40 CFR 1501.2, the NEPA process is used to, “identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.” Improvements to I-40, US 93, and Beale Street have been studied for more than two decades. Numerous alternatives were explored in detail by multi-disciplined teams, presented to the public for consideration and comments, and evaluated and screened through documented processes. The results of these studies provide the foundation for the current design. The alternatives development and screening process is summarized below.

#### A. Prior Studies and Alternatives

The 2015 Draft DCR alternatives development occurred in two phases. The first phase identified ten corridors (Corridors A through J) that would provide a feasible system-to-system connection between I-40 and US 93. Of these ten corridors, six (Corridors A, B, E, F, G, and H) were eliminated from further evaluation because they would not meet the project purpose and need, or they would result in greater impacts on existing residential and/or commercial developments. The remaining four corridors (C, D, I, and J) were identified as the most suitable locations for developing roadway alignments because they served the dominant traffic movements, minimized impacts to CFRA, had fewer new right-of-way (ROW) requirements, and had fewer impacts to residential and commercial parcels. The early corridors were provided to the public and agencies on March 29, 2012. See Appendix C for an excerpt from the 2015 DCR depicting the alternatives.

#### *Preliminary Alternatives*

The second phase evaluated various alignment and interchange/intersection alternatives identified for further refinement within the four remaining corridors (C, D, I, and J). Nine alignment alternatives within these corridors were developed for consideration, six of which were ultimately eliminated due to engineering, environmental, land ownership, and cost considerations.

#### *Screening Process*

In addition to the No-Build alternative, two alignments within Corridor D (Alternatives D1 and D3) and one within Corridor J (Alternative J3) were advanced for further study in the 2015 Draft DCR and Working Draft EA. The alternatives are summarized in Table 2 and depicted in Figure 6.

Alternatives D1, D3, and J3 were presented to the public and agency stakeholders in Kingman in 2013. The alternatives were evaluated based on environmental and community impacts, engineering criteria, and feedback received throughout the engineering and environmental processes (see Appendix C for the screening matrix and summary from the 2015 DCR). In 2015, Alternative D3 was identified as the “Most Favorable Alternative.”

**Table 2. 2015 Draft DCR and EA Alternatives**

Alternative	Description
Alternative D1	<ul style="list-style-type: none"> <li>• Developed to minimize impacts to Section 4(f) properties, specifically CFRA</li> <li>• 8.5 miles of additional travel lanes north of Beale Street before tying into US 93 0.8 mile north of the existing TI</li> <li>• New half-diamond interchange for SB US 93 to access Beale Street businesses; realignment of Fort Beale Road required</li> <li>• Two-lane directional ramps for the dominant movement between Phoenix and Las Vegas and single-lane directional ramps for movement between California and Las Vegas</li> <li>• Modifications to existing Beale Street TI to accommodate new system TI</li> <li>• 53 acres of new ROW</li> <li>• New TI would operate at LOS C; by 2040, all ramps and merge locations would operate at LOS D or better</li> </ul>
Alternative D3	<ul style="list-style-type: none"> <li>• Developed to be responsive to the terrain and provide a greater buffer between the new roadway and residential areas north of Beale Street</li> <li>• New alignment ties into US 93 1.1 miles northwest of existing TI; western terminus is located within CFRA</li> <li>• New half-diamond interchange for SB US 93 to access Beale Street businesses; realignment of Fort Beale Road required</li> <li>• Two-lane directional ramps for the dominant movement between Phoenix and Las Vegas and single-lane directional ramps for movement between California and Las Vegas</li> <li>• Modifications to existing Beale Street TI to accommodate new system TI</li> <li>• 59 acres of new ROW</li> <li>• Accommodates 2040 design year and operates at LOS D or better</li> </ul>
Alternative J3	<ul style="list-style-type: none"> <li>• Developed to minimize ROW requirements</li> <li>• Similar alignment to D3 with western terminus within CFRA</li> <li>• New half-diamond interchange for SB US 93 to access Beale Street businesses; realignment of Fort Beale Road required</li> <li>• Two-lane directional ramps for the dominant movement between Phoenix and Las Vegas and single-lane directional ramps for movement between California and Las Vegas</li> <li>• No modifications required to existing Beale Street TI</li> <li>• 55 acres of new ROW</li> <li>• Accommodates 2040 design year and operates at LOS D or better</li> </ul>
No-Build	The No-Build alternative allowed for only minor improvements, routine maintenance, and pavement resurfacing.

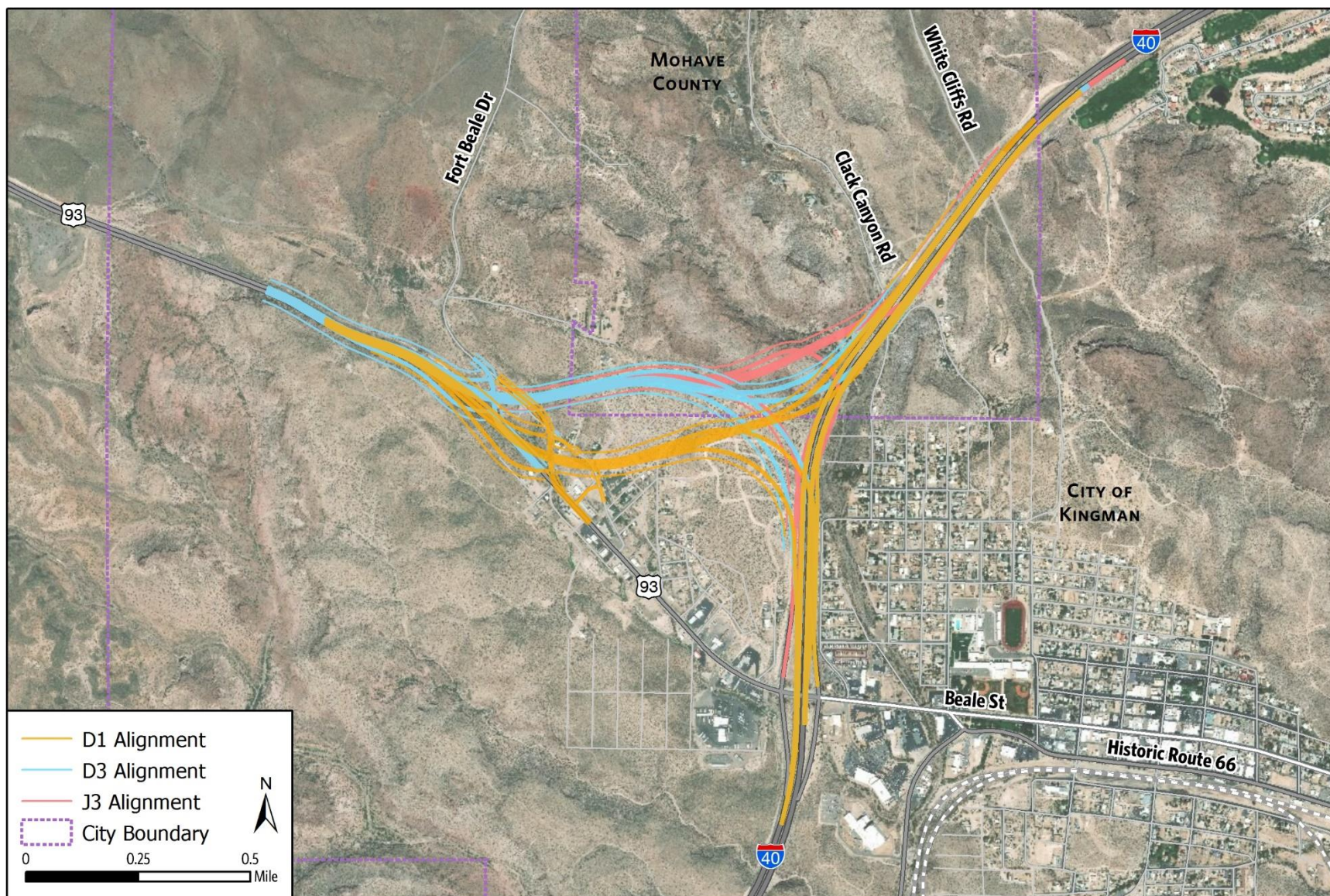


Figure 6. 2015 Draft DCR and Working Draft EA Alternatives

## B. Alternatives Considered

In 2019, based on coordination with agencies, business owners, and the public (see Section V), and additional engineering applied to the Alternative D3 design, modifications to D3 have been identified to better balance the project’s earthwork, reduce impacts to adjacent lands, and prioritize traffic movements. This modified alternative is carried forward and evaluated in this EA. Table 3 compares the elements of Alternative D3 from the 2015 Draft EA and Draft DCR with the 2019 modified alternative.

**Table 3. Comparison of Design Features**

Element	Alternative D3	Modified Alternative
Configuration of Beale Street TI	Half-diamond TI with cross-street grade and stop delays	Merge Beale Street onto US 93 with a spur intersection, with Beale Street merging with US 93 traffic with a free-flow movement and no intersections
Widening	Widen to the outside, increasing earthwork and floodplain impacts	Widen to the median, which minimizes floodplain encroachment and reduces cuts into the adjacent hillside
Roadway profile	I-40 ramp bridge over US 93	Construct a higher elevation profile (US 93 ramps over I-40) through the mountains to minimize cuts and scars and reduce the amount of excavation and waste
Ramp connections	Tapered on-ramp connections between the major ramp connections	Provide parallel on-ramps, which allows the merging driver more room to blend with the upcoming traffic. The change in geometry enables the desired vertical bridge clearances over the mainline, which is crossed by the elevated ramps.

### Preferred Alternative

The selection of the modified alternative as the Preferred Alternative is the result of prior alternatives development and screening, ongoing stakeholder input (see Section V), and additional engineering refinements to improve the design and minimize cost. Since the 2015 Draft DCR and Working Draft EA, the project limits have been expanded along I-40 and US 93 to allow for necessary improvements in capacity to Stockton Hill Road and to allow for transition to existing road widths at the project termini. The Preferred Alternative would improve local and regional access, reduce congestion, and improve traffic operations on US 93, I-40, and Beale Street.

Construction of the Preferred Alternative would occur in two phases. Phase I would include the following elements:

- Providing free-flow, grade-separated ramps to service I-40 WB to US 93 NB and US 93 SB to I-40 eastbound (EB), resulting in approximately one mile of new highway
- Widening and rehabilitating the deck of the existing White Cliff Road Overpass EB #1839 and White Cliff Road Overpass WB #1840

- Widening Clack Canyon Wash Bridge EB #1837
- Rehabilitating the deck of Clack Canyon Wash Bridge WB #1838
- Widening of Interstate 40 and US93
- Constructing new concrete barrier as needed
- Constructing new on-site drainage collection and conveyance systems
- Extending existing culverts and pipes, as needed
- Installing or reconstructing ramp metering, lighting, signage, and pavement markings
- Constructing Americans with Disabilities Act improvements, as needed

The second phase would include the construction of the low-volume I-40 EB to US 93 NB and US 93 SB to I-40 WB ramps.

### *No-Build Alternative*

Under the No-Build Alternative, the West Kingman System TI project would not be constructed, and motorists would continue to use the existing Beale Street TI to move between I-40 and US 93. Roadway improvements near the I-40/US 93 interchange would be limited to currently planned and programmed transportation projects and routine maintenance. Two projects are planned for I-40 in the project vicinity, spot safety improvements at the West Kingman TI and bridge deck rehabilitation where I-40 crosses Holy Moses Wash. These projects would continue to be planned and constructed under the No Build Alternative. The No-Build Alternative would not improve local or regional access, nor would it increase capacity or operational efficiency for vehicles moving between I-40 and US 93; therefore, it would not meet the purpose and need of the project. The No-Build Alternative will be carried forward as a baseline against which the Preferred Alternative will be compared.

### **C. General Project Schedule**

In February 2019, ADOT completed the process of screening the build alternatives. The result of this evaluation was consistent with public and stakeholder input regarding the preferred alternative, and the Preferred Alternative was selected as the Preferred Alternative. It will be the basis for evaluating and assessing potential impacts in this EA along with the No-Build Alternative. On June 15, 2019, the State Transportation Board adopted the 2020-2024 Five-Year Transportation Facilities Construction Program. The proposed action is currently identified in the ADOT Five-Year Transportation Facilities Construction Program for construction in fiscal year 2024. The proposed action is considered fiscally constrained, meaning money has been allocated for this project.

## IV. Affected Environment, Environmental Consequences, and Mitigation

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### A. Issues Eliminated from Detailed Study

Based on early coordination and a review of the project vicinity, the following resources are not analyzed in this document because they are not present:

- Coastal zones and barriers
- Energy
- National natural landmarks
- Outstanding waters
- Prime or unique farmlands
- Scenic roads and parkways
- Section 6(f) resources (properties acquired with Land and Water Conservation Fund money)
- Sole source aquifers
- Wild and scenic rivers
- Wilderness Areas

### B. Land Ownership, Jurisdiction, and Land Use

The location, rate, and form of economic development that occur in an area are influenced by land use policies. In turn, these elements of land use affect the need for and the types of transportation infrastructure improvements that are needed. Understanding the designated land use types is important to determine project compatibility with existing and future land uses. This section describes land ownership, jurisdiction, and land uses in the West Kingman TI project vicinity. Land ownership is identified in terms of public or private management or ownership. Jurisdiction refers to the authority to regulate land uses. Land use is a description of the existing occupation or physical use of land.

#### *Existing Conditions*

Land ownership in the project vicinity includes public and private lands that fall within the jurisdictional boundaries of the City of Kingman, BLM, and unincorporated Mohave County (refer to Figure 2). Lands owned and managed by the Arizona Game and Fish Department (AGFD) are directly outside the project limits. BLM lands include portions of the CFRA in unincorporated Mohave County, with a portion located within Kingman city limits. Figure 7 depicts generalized current land uses within the project vicinity based on the City of Kingman's Interactive Geographic Information Systems data (City of Kingman 2019). Existing land uses in the project vicinity include residential, commercial (businesses, services, etc.), industrial (storage, warehouse, etc.), and recreational open space.

Residential development is present on both sides of I-40 and US 93. Commercial development is concentrated along US 93 and surrounding the Beale Street and Stockton Hill Road TIs, and includes retail, restaurants, hotels, and gas stations. A portion of the residential area northwest of I-40 near White Cliff Road (depicted in light green in Figure 7) is identified as agricultural. The CFRA is designated as recreational open space. This 11,300-acre recreation area includes trailheads and trails that are used by a wide range of recreationalists, including horseback riders, bicyclists, and hikers (BLM et al. 1995).

The City of Kingman General Plan Update 2030 (City of Kingman 2014) identifies future land use within the city's planning area boundaries, which encompasses the City of Kingman's jurisdictional limits, portions of unincorporated Mohave County, and BLM lands. Figure 8 depicts future land uses in the project vicinity.

### *Environmental Consequences – Preferred Alternative*

Construction of the Preferred Alternative would require the acquisition of approximately 75.8 acres of new ROW from parcels along the proposed alignment. New ROW is needed to construct the new ramp that connects southbound I-40 to westbound US 93. The parcel acquisitions include approximately 60 acres from private landowners, 15 acres from the City of Kingman, and 0.8 acre from BLM. Construction of the Preferred Alternative would convert 17 parcels, including one federal, two municipal, one commercial, three residential, and ten privately-owned vacant parcels to a transportation use. Four of the ten vacant parcels are identified as residential and six are undetermined as to the planned future use. The partial take of a municipal parcel comprised of areas immediately adjacent to US 93 within the CFRA would result in the conversion of 0.11 percent of the CFRA to a transportation use. There would be no change in the land use within the rest of the CFRA as a result of this project. Of all the parcels, five would require complete takes, including one primary residence, a municipal parcel (not in CFRA), one non-primary residence, one vacant residential/agricultural parcel, and one more urban vacant parcel identified for residential.

The proposed improvements would tie into US 93 to the west of the businesses along Beale Street. The Preferred Alternative would result in a partial acquisition of one of the commercial properties (0.36 acre of a 4.46-acre parcel), but no structures or access would be affected. This parcel is currently vacant and is identified as a potential residential subdivision. No new ROW would be required of the other business.

The ROW acquisition represents a change in existing and planned land uses by permanently converting residential, commercial, and recreational open space to a transportation facility. The planned use of the majority of the affected areas is residential, followed by recreational, and a very small amount of regional commercial. Associated land use discussions related to Section 4(f) resources are presented in Sections E. Affected parcels are based on the 30 percent design and are subject to change. These parcels are summarized in Table 4 and depicted on Figure 9. Partial acquisitions are not anticipated to affect the function of the remaining parcel.

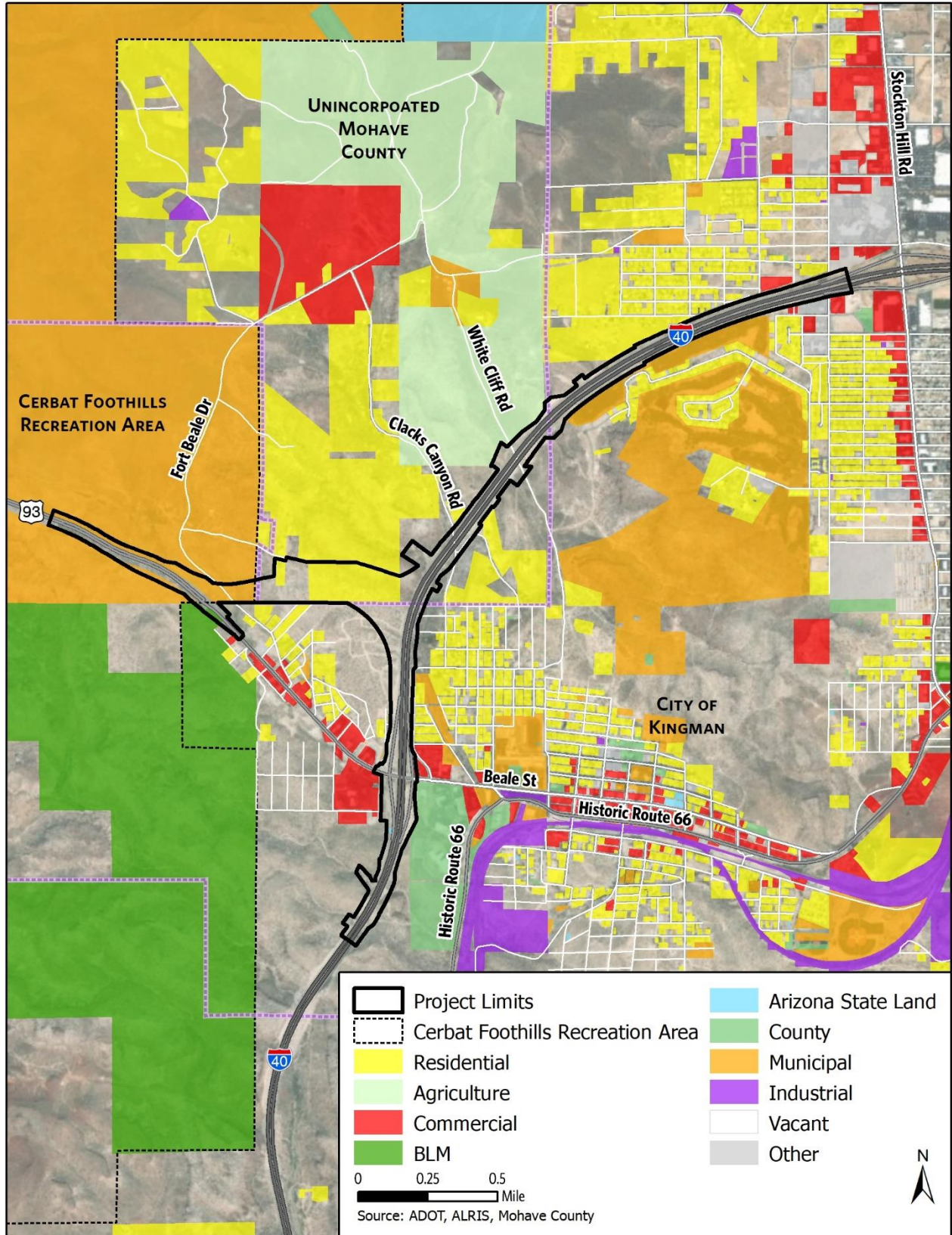


Figure 7. Current Land Use



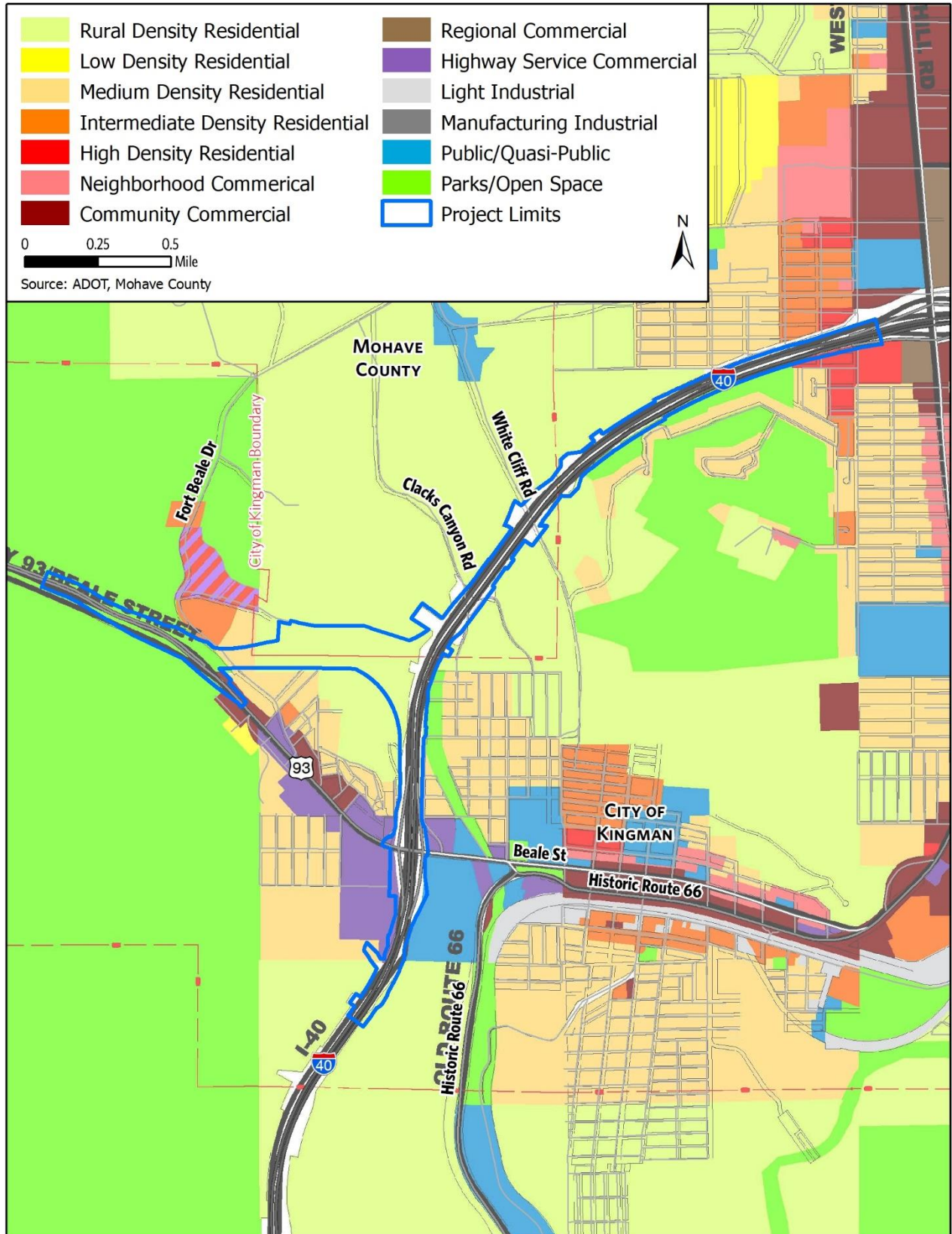
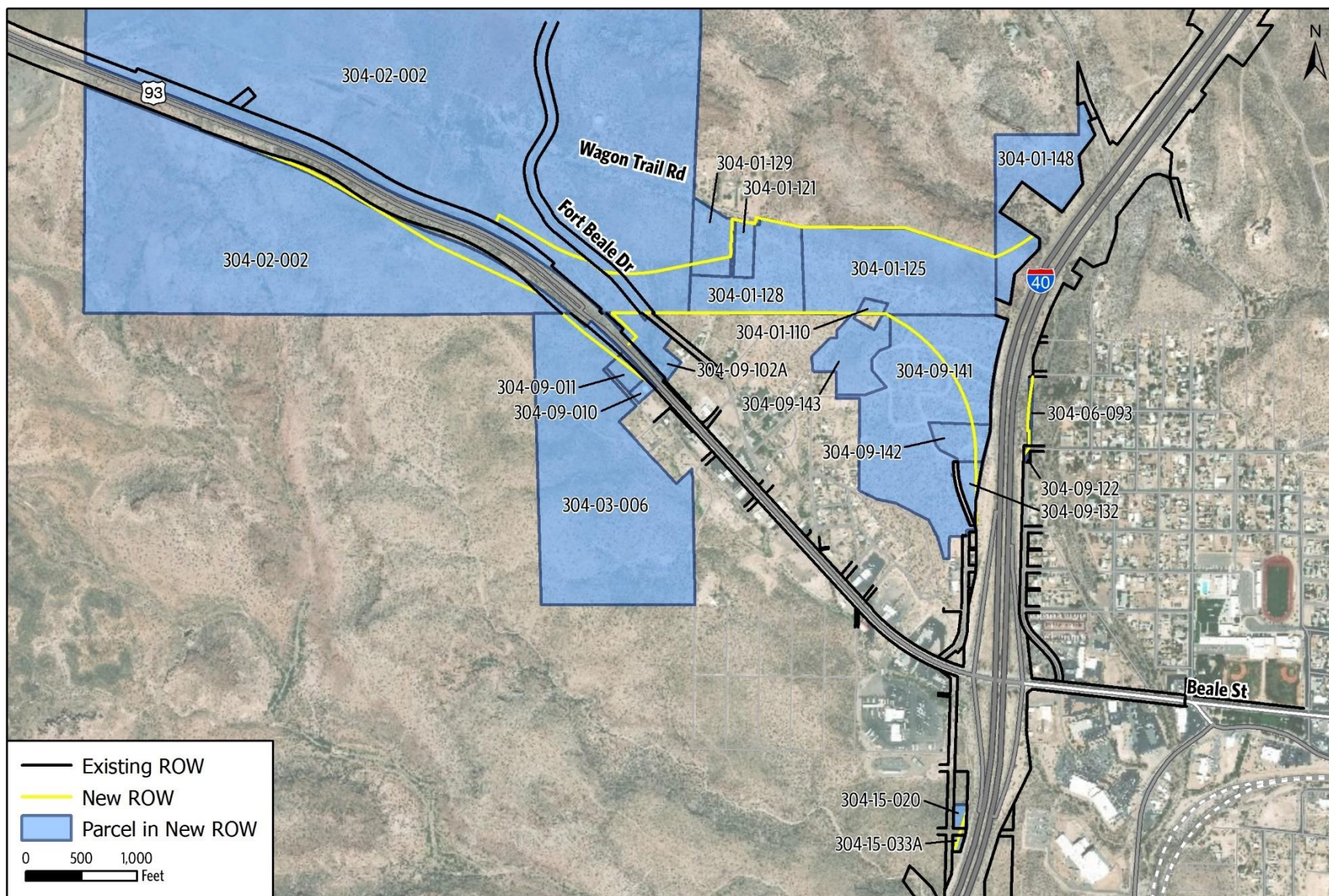


Figure 8. Future Land Use in the Project Vicinity per City of Kingman General Plan Update 2030

**Table 4. Preferred Alternative Parcels Affected Based on 30 Percent Design**

Parcel No.	Land Ownership	Impact Description
304-09-102A	Private – Commercial vacant	Partial acquisition – 0.36 acre of 4.46 acres
304-03-006	BLM – Federal	Partial acquisition – 0.81 acre of 68 acres
304-01-121	Private – Residential	Full acquisition – 2.00 acre of 2.00 acres
304-02-002	City of Kingman – Municipal	Partial acquisition - 14.92 acre of 636.95 acres
304-09-122	City of Kingman – Municipal	Full acquisition – 0.07 acre of 0.07 acre
304-01-110	Private – Residential	Full acquisition – 0.50 acre of 0.50 acre
304-01-125	Private – Residential	Full acquisition – 28.00 acres of 28.00 acres
304-01-128	Private – Vacant	Full acquisition – 13.00 acres of 13.00 acres
304-01-129	Private – Vacant	Partial acquisition – 1.12 acres of 4.91 acres
304-01-148	Private – Vacant	Partial acquisition – 2.60 acres of 15.41 acres
304-09-011	Private – Vacant	Partial acquisition – 0.19 acre of 1.46 acres
304-06-093	Private – Vacant	Partial acquisition – 0.16 acre of 0.43 acre
304-09-132	Private – Vacant	Partial acquisition – 0.11 acre of 1.57 acres
304-09-141	Private – Vacant	Partial acquisition – 10.70 acres of 40.18 acres
304-09-142	Private – Vacant	Partial acquisition – 0.94 acre of 3.51 acres
304-15-020	Private – Vacant	Partial acquisition – 0.09 acre of 0.6 acre
304-15-033A	Private – Vacant	Partial acquisition – 0.18 acre of 0.32 acre

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Source: Mohave County Assessor's Database

Figure 9. Parcels Affected by the Preferred Alternative

The permanent conversion of land uses associated with the Preferred Alternative would be in conformance with the City of Kingman *General Plan Update 2030* (City of Kingman 2014), *Cerbat Foothills Recreation Area Management Plan* (BLM et al. 1995), and the *Kingman Resource Area Proposed Resource Management Plan and Final EIS* (BLM 1993). Minor short-term negative impacts during construction would occur due to traffic delays and congestion. In the long term, conversion of the existing land uses to a transportation facility would benefit the existing businesses and residents by allowing for more efficient traffic movement throughout the area and the removal of passthrough traffic from local roads. Impacts to individuals whose property would be acquired are addressed in Section IV.C, Social and Economic Considerations and impacts to recreational resources are addressed in Section IV.E, Section 4(f) Resources.

### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, no changes in land ownership, jurisdiction, land uses would occur. There would be no direct or constructive impacts.

### *Environmental Commitments and/or Mitigation Measures*

ADOT will compensate land owners at fair market value for new ROW acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646; 49 CFR Part 25) and as amended in 1987 (see Section IV.C). All phases of this project will comply with the ADOT Public Involvement Plan and Title VI of the Civil Rights Act of 1964.

### *Conclusion*

Land ownership in the project vicinity includes public and private land within the jurisdictional boundaries of the City of Kingman, BLM, and unincorporated Mohave County. Existing land uses in the project vicinity include residential, commercial, industrial, and recreational open space. Residential development is present on both sides of I-40 and US 93. Commercial development is concentrated along US 93 and surrounding the Beale Street and Stockton Hill Road TIs. The CFRA is designated as recreational open space.

Based on preliminary design, the Preferred Alternative would require the acquisition of approximately 75.8 acres of new ROW from 17 parcels; five would be complete takes, two residential and three vacant parcels. The permanent conversion of land uses associated with the Preferred Alternative would be in conformance with the City of Kingman planning documents and the CFRA Management Plan. During construction, there would be traffic delays and congestion. The No-Build Alternative would not result in changes in land ownership, jurisdiction, land uses.

## **C. Social and Economic Considerations**

In 2017, Western Area Council of Governments (WACOG) assessed community needs and assets to identify key issues, resources, and gaps to establish regional priorities for western Arizona, including Mohave County (WACOG 2017). WACOG's process for determining regional priorities included a combination of public data analysis and community surveys, interviews, and focus groups, and provides a framework for understanding the socioeconomic context of the Kingman area. This section evaluates the

potential social and economic impacts of the proposed project in consideration of population, housing, income and employment, business and tax base, community resources, and community cohesion.

*Existing Conditions*

Population

According to Arizona’s Office of Economic Opportunity, population growth in Kingman is projected to keep pace with that of Mohave County, averaging a 10.5 percent increase every 10 years (Table 5). Kingman and Mohave County are growing at a slightly slower rate than Arizona, which is projected to average a 13 percent population increase every 10 years.

**Table 5. Population Growth 2010-2040**

Year	Kingman		Mohave County		Arizona	
	Population	Growth	Population	Growth	Population	Growth
2010	28,068	--	200,186	--	6,392,017	--
2020	31,346	11.68%	218,321	9.06%	7,286,100	13.98%
2030	34,732	10.80%	242,725	11.17%	8,284,900	13.70%
2040	38,266	10.17%	268,144	10.47%	9,247,200	11.61%

Source: U.S. Census Bureau (2010a); Arizona Office of Economic Opportunity (2018)

Disabled

Table 6 compares the estimated disabled populations of the census tracts to Kingman, Mohave County, and Arizona; disability data is not reported for block groups in the American Community Survey 5-Year Estimates. For this study, disabled is defined as the civilian, noninstitutionalized population with hearing, vision, cognitive, ambulatory (mobility), self-care, or independent living difficulty.

Kingman, Mohave County, and the project vicinity are comprised of proportionally higher populations of disabled persons compared to the state. In three of the four census tracts (9506, 9536.02, and 9538) the percentage of disabled persons is higher than Kingman and twice that of Arizona.

**Table 6. Disabled Population as of 2017**

Geographic Location	Total Population	Disabled Population	% Disabled
Census Tract 9506	9,656	3,059	31.68%
Census Tract 9536.02	2,010	513	25.52%
Census Tract 9538	5,809	1,259	21.67%
Census Tract 9549	3,900	991	25.41%
Kingman	27,582	5,924	21.48%
Mohave County	200,916	43,226	21.51%
Arizona	6,701,990	854,637	12.75%

Source: U.S. Census Bureau, 2013-2017 ACS 5-Year Estimate (S1810 Disability Characteristics)

Elderly

Elderly populations were tabulated based on people who are age 60 or older. Table 7 compares citywide, countywide, and statewide elderly populations with those of the block groups in the project vicinity. Mohave County has a considerably higher population of elderly than Arizona as a whole; Kingman’s proportion of elderly falls in between statewide and countywide percentages. The proportion of elderly populations varies widely across the block groups. At 41.51 percent, Block Group 2 in Census Tract 9538 includes the highest proportion of elderly residents.

**Table 7. Elderly Populations**

Geographic Location	Total Population	Elderly Population	Percent Elderly
Census Tract 9506, Block Group 1	3,578	1,254	35.05%
Census Tract 9506, Block Group 4	598	160	26.76%
Census Tract 9536.02, Block Group 1	1,856	195	10.51%
Census Tract 9536.02, Block Group 2	490	120	24.49%
Census Tract 9536.02, Block Group 3	772	155	20.08%
Census Tract 9538, Block Group 2	1,884	782	41.51%
Census Tract 9549, Block Group 2	1,497	410	27.39%
Kingman	28,855	8,348	28.92%
Mohave County	204,691	73,559	35.94%
Arizona	6,809,946	1,502,688	22.07%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimate (B01001 Sex by Age)

Female Head of Household

Table 8 summarizes the households headed by a female with no husband present and with her own children under the age of 18 across block groups, Kingman, Mohave County, and Arizona. Compared to Arizona, Kingman and Mohave County have fewer female heads of household. However, the percentage of female heads of household in the block groups ranges from three points below to three points above countywide populations. Female heads of household represent more than 8 percent of the population in Block Groups 1 and 3 of Census Tract of 9536.02 and Block Group 2 of Census Tract 9549, which also exceeds the statewide level of 7.11 percent.

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**Table 8. Female Head of Household**

Geographic Location	Total Households	Female Head of Household	Percent Female Head of Household
Census Tract 9506, Block Group 1	1,460	40	2.74%
Census Tract 9506, Block Group 4	331	7	2.11%
Census Tract 9536.02, Block Group 1	306	25	8.17%
Census Tract 9536.02, Block Group 2	386	27	6.99%
Census Tract 9536.02, Block Group 3	374	30	8.02%
Census Tract 9538, Block Group 2	814	38	4.66%
Census Tract 9549, Block Group 2	534	43	8.05%
Kingman	11,217	735	6.55%
Mohave County	82,539	4,404	5.33%
Arizona	2,380,990	169,397	7.11%

Source: U.S. Census Bureau (2010) (P19 Household Size by Household Type by Presence of Own Children)

Housing

The U.S. Census Bureau’s 2013-2017 American Community Survey data indicates that housing stock is available within Kingman and within Mohave County, with vacancy rates at 10.6 percent and 25.9 percent for the city and county, respectively (Table 9). According to the City of Kingman General Plan Update 2030, most of the housing stock within the city limits is single-family homes; conversely, manufactured homes comprise most of unincorporated Mohave County located within the city’s planning area boundaries (City of Kingman 2014). In 2018, the City of Kingman issued 276 building permits for residential homes, consistent with its 39-year average of 212 new homes per year (City of Kingman 2018). This data suggests that the city’s housing needs are keeping pace with the area’s population growth.

**Table 9. Estimated Available Housing as of 2017**

Housing Occupancy	Kingman	Mohave County
Total number of housing units	12,365	113,220
Number of occupied housing units	11,058	83,902
Vacancy rate	10.6 percent	25.9 percent

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates (DP04 Selected Housing Characteristics)

Income and Employment

Mean household income provides an economic indicator of an area’s standard of living. Table 10 compares the average household incomes of Mohave County, Kingman, and the census tracts intersecting the project vicinity and provides the top three industry classifications for each geographic location. Figure 10 depicts the census tracts and related block groups. The boundaries of these block groups extend beyond the project limits and immediate vicinity and therefore present a wider demographic profile of the

area. American Community Survey data are aggregated over a five-year period for a given census tract and is not provided at the block group level for household income.

According to Mohave County Economic Development, major industries countywide include manufacturing; energy; distribution, logistics, and transportation; health care; and arts and entertainment. Within Kingman, leading employers include American Woodmark Corporation, Guardian Fiberglass, Laron Engineering, Nucor Steel, McKee Foods Corporation, IWX Motor Freight, TruServ Corporation, CTI, and Kingman Regional Medical Center (Mohave County Economic Development 2019).

**Table 10. Mean Household Income**

Geographic Location	Mean Household Income	Major Industries
Census Tract 9506	\$44,249	<ul style="list-style-type: none"> <li>• Retail</li> <li>• Education, health care, social assistance services</li> <li>• Arts, entertainment, recreation</li> </ul>
Census Tract 9536.02	\$37,850	<ul style="list-style-type: none"> <li>• Education, health care, social assistance services</li> <li>• Transportation, warehousing, utilities</li> <li>• Professional, scientific, management, administrative</li> </ul>
Census Tract 9538	\$57,486	<ul style="list-style-type: none"> <li>• Education, health care, social assistance services</li> <li>• Arts, entertainment, recreation</li> <li>• Retail</li> </ul>
Census Tract 9549	\$53,504	<ul style="list-style-type: none"> <li>• Education, health care, social assistance services</li> <li>• Arts, entertainment, recreation</li> <li>• Retail</li> </ul>
Kingman	\$58,515	<ul style="list-style-type: none"> <li>• Education, health care, social assistance services</li> <li>• Arts, entertainment, recreation</li> <li>• Retail</li> </ul>
Mohave County	\$55,295	<ul style="list-style-type: none"> <li>• Education, health care, social assistance services</li> <li>• Arts, entertainment, recreation</li> <li>• Retail</li> </ul>

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates (DP03 Selected Economic Characteristics)

Business and Tax Base

As the county seat, Kingman serves as a regional employment center providing tax revenue and jobs for the city and the county. In addition to the industries and employers described above, Kingman’s tax base is also supported by the service industry with hotels, restaurants, stores, and gas stations catering to local tourism and to motorists and freight moving between Phoenix and Las Vegas.

Community Resources and Community Cohesion

Community resources were reviewed for this project and included activity centers, public services and facilities, places of worship, and recreational areas. Research conducted indicated that most of the community resources are outside of the immediate project vicinity and clustered within the residential and commercial nodes of Kingman on both sides of I-40. Neighborhoods occur on either side of physical barriers of I-40 and US 93. No places of worship, schools, medical facilities, emergency services, or other public service providers are located within the project limits. Emergency response vehicles are slowed by





Figure 10. Census Tracts and Block Groups

traffic congestion in the vicinity of the exiting TI. In addition, a substantial number of accidents occur in this area. Two recreational resources are located within or immediately adjacent to the project limits: the CFRA along US 93 and the Cerbat Cliffs Golf Course south of I-40 near MP 51 (see Figure 11 in Section IV.F).

The arterial and local street network provides access to residential neighborhoods, commercial centers, and community resources. This roadway network is supported by bicycle and pedestrian facilities, which connect residents to public services and community amenities.

### *Environmental Consequences – Preferred Alternative*

The Preferred Alternative would potentially have a negative impact on housing due to the acquisition of parcels identified for residential use; however, the population is growing at about 10 percent every 10 years and approximately 10 percent of the housing inventory is available within Kingman and 26 percent in Mohave County, it is anticipated that there is an adequate supply of housing and that housing is keeping pace with the population growth. The overall impact of the Preferred Alternative is anticipated to be minor. Parcel acquisitions would occur in Census Tract 9536.02 Block Group 3 (containing disabled, and female head of household populations) and Census Tract 9506 Block Groups 1 (containing poverty and elderly populations) and 4 (containing disabled population). Affected individual property owners would be compensated for their property at market value per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646; 49 CFR Part 25), as amended in 1987, and Title VI of the Civil Rights Act of 1964, so the overall impacts of the preferred alternative is anticipated to be minor. The Preferred Alternative would result in a minor adverse effect elderly, disabled, and female-head-of-household populations due to construction noise and delays or due to property acquisitions. However, these impacts would be borne by all living and travelling through the project vicinity. Once constructed, project features would benefit all who travel in the study area.

The project would facilitate the movement of traffic through Kingman, as local in population and associated traffic occur. Access to businesses along Beale Street would continue to be readily available from the highway and interstate, but for motorists who do not intend to stop, the through traffic movement would be removed from the local traffic and allow local traffic easier access to businesses and homes in the vicinity. Employment opportunities associated with the construction of the new facilities and the services that workers need would improve in the short-term. In the long-term, the project would have no impact on income or employment. The Preferred Alternative would improve emergency response times by alleviating traffic on the local street. In addition, the number of traffic accidents on Beale Street near the TI is projected to decrease by more than 35 percent (ADOT 2020b). The new ramp between SB I-40 and WB US 93 would introduce a new road where none currently exists. Neighborhoods are located adjacent to some portions of this ramp. The project would not bisect these communities or limit their access. Community cohesion would not be affected by the Preferred Alternative.

A small portion (12.65 acres) of the CFRA immediately adjacent to US 93 would be acquired and reduce the amount of available land on which recreation could occur. The areas that would be used for the Preferred Alternative would no longer have recreational value. No trails or trail heads would be directly or indirectly affected. The existing trail connection at US 93 would not be affected by this project. The

potential increase in noise at the Cerbat Cliffs Golf Course would not adversely affect the use of the course. The increase in noise within CFRA would be minor and would decrease with distance from the project (see Section IV.H). The Preferred Alternative would not separate neighborhoods or affect access. The ramp from I-40 to US 93 would pass between a county area that is not designated as a neighborhood and a city suburban neighborhood. The Preferred Alternative would accommodate all existing roads connecting the residential areas on their existing alignments. No changes in services available or access to services or community resources would be affected. Community cohesion would not be adversely affected. Overall, the Preferred Alternative would have a beneficial social and economic impact on the project vicinity.

#### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, traffic congestion would continue to worsen, adversely affecting access to businesses and services. Accidents would continue to occur at the TI exacerbating this issue. Emergency response times and demand on services to respond to crashes would continue to be strained at the existing TI. No ROW acquisition would be undertaken. Impacts associated with the No-Build Alternative would not place a disproportionate burden on any population but would be borne by all populations similarly.

#### *Environmental Commitments and/or Mitigation Measures*

ADOT and the contractor should follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646; 49 CFR Part 25, as amended), ADOT's Right-of-Way Procedures Manual, Title VI of the Civil Rights Act of 1964, and ADOT's Public Involvement Plan.

#### *Conclusion*

Population growth in Kingman is projected to keep pace with that of Mohave County, averaging a 10.5 percent increase every 10 years, which is a slightly slower rate than Arizona as a whole. Kingman development and the housing supply are keeping pace with the area's population growth.

The Preferred Alternative would require the acquisition of two residential properties and vacant land identified as residential that could be developed; these acquisitions would affect individuals but not the local available housing supply in general. The decrease in land available for recreation at the CFRA would be minor (refer to Section IV.F, Section 4[f] for more information). The project would provide numerous beneficial impacts including improving traffic movement and access to businesses and homes, reducing crashes, providing short-term employment opportunities associated with construction and increased revenue for local service providers to accommodate workers and project supplies throughout construction. All these impacts would result in a minor adverse effect on elderly, disabled, and female-head-of-household populations.

## D. Title VI of the Civil Rights Act of 1964 (Title VI) and Environmental Justice

Title VI protects people from discrimination based on race, color, and national origin in federally-funded programs and activities. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs federal agencies to identify and address disproportionately high and adverse human health and environmental effects of federally-funded programs, activities, or projects on minority and low-income populations. This includes the full and fair participation by all potentially affected communities in the transportation decision-making process. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, requires federal agencies to provide and enable meaningful access for Limited English Proficiency (LEP) individuals to federally-funded programs, services, and actions.

U.S. Census Bureau data were compiled to identify the environmental justice populations in the project vicinity. The project limits intersects four census tracts further subdivided into seven block groups (refer to Figure 10). The following summaries are based on the most recent data available for each topic, including U.S. Census 2010 and 2011-2015 as well as 2013-2017 American Community Survey 5-year estimates. Block group data provides the most accurate information about a population. When available, this evaluation relies on block group data; otherwise census tract level data are used.

### *Existing Conditions*

#### Minority Populations

Department of Transportation and FHWA define minority groups as follows:

- Black (a person having origins in any of the black racial groups of Africa)
- Hispanic or Latino (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race)
- Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent)
- American Indian and Alaskan Native (a person having origins in any of the original people of North America, South America, including Central America, and who maintains cultural identification through tribal affiliation or community recognition)
- Native Hawaiian or Other Pacific Islander (people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)

Table 11 summarizes the 2010 census data regarding race and ethnicity. The U.S. Census Bureau considers race and ethnicity to be separate. Ethnicity describes whether a person is of Hispanic or Latino origin. Those of Hispanic or Latino origin may identify as any race.

More than 87 percent of Kingman and Mohave County residents identify as white, while 12.48 percent and 14.77 percent identify as Latino (of any race), respectively. A comparison of countywide, citywide, and

**Table 11. Minority and Race Breakdown by Census Tracts**

Geographic Location	Total Population (count)	Racial Minority Population <sup>1</sup> (Percent)	Black	American Indian and Alaskan Native	Asian American (Percent)	Native Hawaiian or Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino
Census Tract 9506, Block Group 1	3,347	9.11%	18 (0.54%)	39 (1.17%)	46 (1.37%)	6 (0.18%)	110 (3.29%)	86 (2.57%)	396 (11.83%)
Census Tract 9506, Block Group 4	725	8.41%	8 (1.10%)	5 (0.69%)	10 (1.38%)	2 (0.28%)	8 (1.10%)	28 (3.86%)	76 (10.48%)
Census Tract 9536.02, Block Group 1	871	18.94%	4 (0.46%)	22 (2.53%)	5 (0.57%)	2 (0.23%)	97 (11.13%)	35 (4.02%)	212 (24.34%)
Census Tract 9536.02, Block Group 2	951	13.67%	18 (1.89%)	42 (4.42%)	15 (1.58%)	2 (0.21%)	29 (3.05%)	24 (2.52%)	104 (10.94%)
Census Tract 9536.02, Block Group 3	825	12.48%	14 (1.70%)	9 (1.09%)	4 (0.48%)	2 (0.24%)	41 (4.97%)	33 (4.0%)	109 (13.21%)
Census Tract 9538, Block Group 2	2,076	10.21%	18 (0.87%)	21 (1.01%)	31 (1.49%)	12 (0.59%)	66 (3.18%)	64 (3.08%)	215 (10.36%)
Census Tract 9549, Block Group 2	1,122	10.96%	21 (1.87%)	29 (2.58%)	12 (1.07%)	1 (0.09%)	32 (2.85%)	28 (2.50%)	96 (8.56%)
Kingman	28,068	11.96%	289 (1.02%)	476 (1.7%)	469 (1.67%)	85 (0.30%)	1,178 (4.20%)	860 (3.06%)	3,503 (12.48%)
Mohave County	200,186	13.14%	1,882 (0.94%)	4,500 (2.25%)	2,103 (1.05%)	341 (0.17%)	11,989 (5.99%)	5,493 (2.74%)	29,569 (14.77%)
Arizona	6,392,017	26.99%	259,008 (4.05%)	296,529 (4.64%)	176,695 (2.76%)	12,648 (0.20%)	761,716 (11.92%)	218,300 (3.42%)	1,895,149 (29.65%)

<sup>1</sup> Racial minority is comprised of all categories in the table with the exception of Hispanic or Latino origins, because the data is from a different Census dataset.  
Source: U.S. Census Bureau (2010) (P3 Race and P4 Hispanic or Latino Origin)

census tract populations indicates that Block Groups 1, 2, and 3 of Census Tract 9536.02 have higher proportions of racial minorities, and Block Groups 1 and 3 of the same census tract include a higher percentage of Latino residents. Therefore, Block Groups 1, 2, and 3 of Census Tract 9536.02 constitute minority populations.

Low-Income Populations

Table 12 summarizes low-income populations in the project vicinity, Kingman, Mohave County, and Arizona. Low-income includes any individual or household whose income in the last 12 months is at or below the Department of Health and Human Services poverty guidelines. In 2019, the poverty guideline for a family of four was \$25,750.

Kingman has a higher percentage of low-income households compared to the county and state. Five of the seven block groups include low-income populations well above the citywide population, where approximately one-quarter or more of the residents are low-income. Most notably, in Block Group 1 of Census Tract 9536.02, more than 50 percent of the population is low-income. Block Group 1 of Census Tract 9506, Block Groups 1 and 3 of Census Tract 9536.02, Block Group 2 of Census Tract 9538, and Block Group 2 of Census Tract 9549 constitute low-income populations (refer to Figure 10).

**Table 12. Low-Income Population**

Geographic Location	Total Population	Below Poverty Level	Percent Low-Income
Census Tract 9506, Block Group 1	3,570	877	24.56%
Census Tract 9506, Block Group 4	598	57	9.53%
Census Tract 9536.02, Block Group 1	748	418	55.88%
Census Tract 9536.02, Block Group 2	490	90	18.36%
Census Tract 9536.02, Block Group 3	772	196	25.38%
Census Tract 9538, Block Group 2	1,719	520	30.25%
Census Tract 9549, Block Group 2	1,450	564	38.89%
Kingman	27,332	5,290	19.35%
Mohave County	199,697	37,080	18.56%
Arizona	6,654,096	1,128,046	16.95%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimate (B17021 Poverty Status)

Limited-English Proficiency

Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient, or "LEP." Table 13 lists English proficiency between the census tracts, Kingman, Mohave County, and Arizona. LEP is defined as total

persons five years and older who speak a language other than English at home and speak English less than “very well.” Among LEP households in the project vicinity, the primary language spoken is Spanish.

**Table 13. Language Spoken**

Geographic Location	Total Population	Limited English-Speaking Population	Percent Limited English-Speaking	Languages Spoken
Census Tract 9506	9,217	188	2.04%	174 speak Spanish 14 speak Japanese
Census Tract 9536.02	2,840	79	2.78%	79 speak Spanish
Census Tract 9538	5,302	92	1.74%	67 speak Spanish 25 speak Tagalog
Census Tract 9549	3,661	49	1.34%	49 speak Spanish
Kingman	26,628	495	1.86%	337 speak Spanish 100 speak Tagalog 28 speak Navajo 18 speak Japanese 12 speak Chinese
Mohave County	193,644	7,771	4.01%	6,410 speak Spanish 385 speak Chinese 297 speak Tagalog 124 speak German
Arizona	6,208,093	570,144	9.18%	451,215 speak Spanish 20,030 speak Navajo 27,148 speak other Native languages of North America 15,809 speak Chinese 13,009 speak Vietnamese

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimate (B16004 and B16001)

*Environmental Consequences – Preferred Alternative*

In the context of Title VI and Environmental Justice, an adverse effect is a significant individual or cumulative human health or environmental effects (e.g. the displacement of a household structure or business as a requirement to build a project). A Disproportionately High and Adverse Effect on Minority and Low-income Populations is an adverse effect that:

- Is predominately borne by a minority population and/or a low-income population, or
- Will be suffered by the minority populations and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

During construction of the Preferred Alternative, motorists would experience temporary delays and slower speeds; however, access to businesses and neighborhoods would be maintained at all times. Traffic delays and slower speeds would be experienced by everyone who passes through the study area. Temporary construction impacts of the Preferred Alternative would not fall disproportionately on low-income and minority populations. In the long-term, traffic flow would be improved, and delays minimized for those in the study area because regional traffic passing through would not enter the local street network.

As discussed in the Section IV.B, Land Ownership, Jurisdiction, and Land Use, 17 parcels would be affected by the Preferred Alternative, including five parcels that would be acquired entirely. The majority of the affected parcels are vacant. Two homes would be acquired, one of which is a primary residence. Parcel acquisitions would occur in Census Tract 9536.02 Block Group 3 (minority populations) and Census Tract 9506 Block Groups 1 (poverty populations) and 4. The rest of the improvements would occur within the existing ADOT ROW.

The design of the Preferred Alternative has incorporated all feasible measures to minimize the magnitude of project impacts by reducing new ROW. Given the location of US 93 and I-40, alternative locations were not feasible beyond minor alignment adjustments and would still cross areas with protected populations. The necessary acquisition of ROW would be compensated at fair market value in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646; 49 CFR Part 25) and as amended in 1987 and in compliance with Title VI of the Civil Rights Act of 1964. Persons displaced as a result of land acquisition would be given relocation assistance.

The Preferred Alternative would result in an increase in noise, particularly where the new ramp between I-40 and US 93 is proposed. Mitigation of noise impacts in the form of noise barriers has been evaluated. Please refer to Section IV.I, Noise Analysis for additional information. Noise impacts are anticipated throughout much of the project area and would not disproportionately affect protected minority or low-income populations. Three noise barriers are proposed. These barriers would benefit both minority and low-income populations and would help mitigate noise impacts on these two populations. The locations where barriers are warranted but feasible include a mix of larger and smaller properties. The impact would not be disproportionately adverse on protected populations.

The project would result in several positive impacts. The improvements would alleviate traffic congestion by removing freeway traffic from the local roadways and decreasing the number of traffic accidents that occur in the project vicinity. Positive benefits would achieve the purpose of the project and would be comparable to or outweigh the negative impacts.



ADOT has conducted early scoping, and ongoing agency and public meetings to keep the people of Kingman and Mohave County advised of the project and to understand issues and concerns. The project team specifically reached out to potentially affected property owners to inform them of upcoming meetings and to discuss their concerns. The project team also reached out to businesses that would be affected by proximity to the project. Summaries of outreach can be found in Section V, Public Involvement, and in Appendix B). Pursuant to Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act (ADA) and other nondiscrimination laws and authorities, ADOT does not discriminate on the basis of race, color, national origin, sex, age, or disability. For this document and meetings, persons that require a reasonable accommodation based on language or disability should contact ADOT.

Overall, the project would result in a minor adverse effect on minority and low-income populations. However, this impact would affect all people living and passing through the area, so no disproportionate impacts on environmental justice populations or discrimination under Title VI for race would occur as a result of the construction of the project. Once constructed, project features would benefit all who travel in the study area.

#### *Environmental Consequences – No-Build Alternative*

Similar to the Preferred Alternative, impacts associated with the No-Build Alternative would not disproportionately adversely affect minority or low-income populations or result in disparate impacts based on race under Title VI. Under the No-Build Alternative, congestion and traffic delays would continue to affect local and regional traffic and would become worse over time commensurate with population growth. The LOS with the current TI configuration would worsen with time as would the anticipated number of accidents that occur.

#### *Environmental Commitments and/or Mitigation Measures*

ADOT and the contractor should follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646; 49 CFR Part 25, as amended), ADOT's Right-of-Way Procedures Manual, Title VI of the Civil Rights Act of 1964, and ADOT's Public Involvement Plan.

#### *Conclusion*

Minority and low-income populations have been identified within the project vicinity. Spanish has been identified as the primary language spoken by the LEP populations within the study area.

The Preferred Alternative would require the acquisition of two residential properties and vacant land identified as residential that could be developed; these acquisitions would affect individuals but not the local available housing supply in general. The project would provide numerous beneficial impacts including improving traffic movement and access to businesses and homes, reducing crashes, providing short-term employment opportunities associated with construction and increased revenue for local service providers to accommodate workers and project supplies throughout construction. Overall, the project would result in a minor adverse effect on protected minority and low-income populations. However, no disproportionate impacts would be predominantly borne by a minority population and/or low-income

population. Further impacts would not be appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the non-minority population and/or population that is not low-income. Once constructed, project features would benefit all who travel in the study area.

census tract populations indicates that Block Groups 1, 2, and 3 of Census Tract 9536.02 have higher proportions of racial minorities, and Block Groups 1 and 3 of the same census tract include a higher percentage of Latino residents. Therefore, Block Groups 1, 2, and 3 of Census Tract 9536.02 constitute minority populations.

## E. Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800) require federal agencies to take into account the effects of their undertakings on historic properties and afford the State Historic Preservation Office (SHPO) and other interested parties the opportunity to comment on such undertakings.

Historic properties include prehistoric and historic districts, sites, buildings, structures, or objects included in or eligible for inclusion in the National Register of Historic Places (NRHP). Historic properties may be eligible for inclusion in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of the following criteria:

- Criterion A: Be associated with events that have made a significant contribution to the broad patterns of our history
- Criterion B: Be associated with the lives of persons significant in our past
- Criterion C: Embody the distinctive characteristics of a type, period, or method of construction; or represent the work of a master; or possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction
- Criterion D: Have yielded, or may be likely to yield, information important in prehistory or history

Properties can be of local, state, or national importance. In general, properties less than 50 years of age, unless of exceptional importance, are not eligible for inclusion in the NRHP.

### *Existing Conditions*

The area of potential effects (APE) is defined as the geographic area where an undertaking may directly or indirectly alter the character or use of historic properties. In July 2014, FHWA, ADOT, SHPO, BLM, the Arizona State Museum, the City of Kingman, Mohave County, the Hopi Tribe, the Chemehuevi Tribe, the Colorado River Indian Tribes, the Fort Mojave Indian Tribe, the Hualapai Indian Tribe, Yavapai-Apache Nation, and the Moapa Band of Paiute Indians executed a project-specific programmatic agreement (PA) to mitigate adverse effects to historic properties within the project's APE in 2014. Since that time, the project APE has been slightly modified, and additional consulting parties have been identified. These consist of Navajo Nation and Yavapai-Apache Nation. An amendment to the PA has been sent to the consulting parties.

With current design described in Section III Alternatives, minor changes to the APE for the Preferred Alternative have occurred. The project APE consists of three segments of roadway and undeveloped areas located in Mohave County(see Figure 2).

- Segment 1: Approximately 3.43 miles along Interstate-40 (between MP 48.32 and 51.75).
- Segment 2: Approximately 0.80 miles along US 93 (between MP 69.60 and 71.00).
- Segment 3: Proposed Traffic Interchange: Approximately 0.80 miles of undeveloped land between US 93 and I-40 northwest of Kingman, AZ.

The APE has been investigated in its entirety, as summarized in Table 14. The cultural resources located within the amended APE are presented in Table 15, along with a description of the resource and associated NRHP eligibility determinations or recommendations.

**Table 14. Previous Cultural Resource Investigations within a Half Mile**

Report Title	Reference
<i>Archaeological Survey and Excavations at Beale Springs.</i>	Smithwick 1980
<i>Archaeological Investigations along the US Route 93 Right-of-way near Kingman, Mohave County, Arizona</i>	Jones 1991
<i>Kingman Sidewalks</i>	Stone 1993
<i>Evaluation of Five Previously Recorded Sites and an Archaeological Survey of the Proposed Realignment Between Mileposts 67 and 70.3 of U.S. Highway 93, Mohave County, Arizona</i>	Crary 1994
<i>Historic Roads Archival Research and Field Investigations along US 93 Between Mileposts 67 and 70.3, North of Kingman, Mohave County, Arizona</i>	Macnider et al. 1994
<i>An Archaeological Survey of an Irregular Right-of-Way Parcel at the Traffic Interchange along I-40 and US 93, On the West Side of Kingman, Mohave County, Arizona</i>	Spalding 1997
<i>Coyote Pass Survey</i>	Hasbargen 1998
<i>Stockton Hill Road Kingman TI</i>	Schaafsma 1999
<i>A Cultural Resources Inventory of Portions of the Interstate 40 Right-of-way, Mileposts 3.4 to 8.3, 16.0 to 48.6, 49.3 to 52.0, 52.6 to 86.23, 110.49 to 139, and 144.3 to 146.2, Between Topock and Ash Fork, Mohave and Yavapai Counties, Arizona</i>	Spalding and Weaver 2000
<i>I-40; Holy Moses Wash to Rattlesnake Wash</i>	Langan 2008
<i>A Cultural Resources Survey of 106.10 Acres for the I-40/US 93 West Kingman System Traffic Interchange, Kingman, Mohave County, Arizona</i>	Hart and Davis 2013
<i>Golden Valley 230kV Transmission Line Project</i>	Tactikos and Rucker 2019; Vaughn and Peters 2010

**Table 15. Cultural Resources within the Amended APE**

Site Number	Description	NRHP Eligibility
AZ F:16:1(ASM)	Camp Beale Springs/Old Fort Beale/Beale Springs – This site was originally in the APE but has been avoided so is adjacent to the APE. It is a previously recorded multicomponent site that was relocated during the current project. Initially it was a historic military installation, Camp Beale Springs, established in 1870. It was occupied by Euro-American troops and Hualapai groups until 1874, then utilized for military administration until about 1900. During the next approximate half-century, the site was used for ranching and milling activities.	NRHP Listed (A, D); (No. 74000459, listed 7/18/1974)
AZ F:16:14(ASM)	Two rock shelters with associated Hualapai Brownware sherds	Unevaluated
AZ F:16:21(ASM)	Multicomponent historic site consisting of an artifact scatter, rock alignment, and wickiup rings, possibly utilized as Hualapai seasonal habitation	Determined eligible (D); (Gasser [SHPO] to Belt [ADOT], 5/16/1992)
AZ F:16:24(ASM)	Seasonal habitation site consisting of a rock shelter with an associated artifact scatter, used by Hualapai, and possibly Cerbat, groups	Determined eligible (D); (Gasser [SHPO] to Belt [ADOT], 5/16/1992)
AZ F:16:32(ASM)	Low-density artifact scatter and rock alignment, a possible wickiup ring. With aboriginal and historic artifacts present, it is thought to represent a Hualapai seasonal occupation.	Determined eligible (D); (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:37(ASM)	Historic structure, the Hardy Toll Road/Kingman Mineral Park road alignment, and an associated scatter. The toll road was established in 1864 and remained in use as a toll road until 1876.	Determined eligible (A, D); (Gasser [SHPO] to Rosenberg [ADOT], 9/19/1994)
AZ F:16:39(ASM)	Historic road alignment of an unnamed road and trash scatter	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:45(ASM)	Historic site consisting of a series of low rock walls, possible constructed by ranchers.	Determined ineligible; (Griffith [SHPO] to Gasser [ADOT], 7/24/1996)
AZ F:16:47(ASM)	Wagon wheel ruts in bedrock	Determined ineligible (Miller [SHPO] to Lindauer ADOT], 10/28/1996)
AZ F:16:48(ASM)	historic period seasonal camp consisting of four rock shelters and a possible surface structure; partially excavated.	Determined eligible (D); (Miller [SHPO] to Lindauer [ADOT], 5/12/1997)

Site Number	Description	NRHP Eligibility
AZ F:16:49(ASM)	Historic trash scatter	Determined ineligible; (Griffith [SHPO] to Gasser [ADOT], 7/24/1996)
AZ F:16:98(ASM)	Possible mining feature, consisting of a small pit excavated into bedrock and overlain with timbers and corrugated metal, and a light scatter of historic/modern artifacts	Determined ineligible; (Jacobs [SHPO] to Hollis [FHWA], 1/27/2009)
AZ F:16:99(ASM)	Historic artifact scatter dating to the early twentieth century	Determined eligible (D); (Jacobs [SHPO] to Hollis [FHWA], 1/27/2009)
AZ F:16:104(ASM)	Historic trash scatter and road segment site with two loci and appears to represent recreational use over a broad period of time.	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:106(ASM)	Four historic features and associated artifacts, possibly representing a camp site or rest area. The features include a rock alignment, a rock-lined depression, three road segments and a rock ring.	Determined eligible (D); (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:107(ASM)	Historic can dump that represents a single-episode dump.	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:108(ASM)	Lithic scatter and historic building recorded multicomponent site with a prehistoric lithic scatter and historic building	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:109(ASM)	Unnamed historic road segment	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:110(ASM)	Historic residence and corral from the 1960s. A number of features and two track roads were present, but no extant buildings.	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:111(ASM)	Historic utility line	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:112(ASM)	Historic utility line	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:113(ASM)	Historic utility line	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)
AZ F:16:114(ASM)	Historic utility line	Determined ineligible; (Jacobs [SHPO] to Petty [FHWA], 11/12/2013)

Site Number	Description	NRHP Eligibility
AZ I:14:5(ASM)	Road segments (Beale Wagon Road) - Various segments have been recorded across northern Arizona under various site designations since the road was first documented as a historic property in 1961; they are now consolidated into one. In 2012, LSD recorded a road segment within the current APE (Hart and Davis 2013) as a part of Beale Wagon Road, which they determined to contribute to the overall eligibility of the property. The segment was relocated and rerecorded for the current project; however, archival research verified that this previously recorded segment of the roadway does not represent the historic Beale Road alignment. The segment within the APE is actually a portion of a historic local connector road.	Determined eligible (A, D), SHPO, multiple dates (AZSITE No. 69483)
Number not assigned	The in-use historic alignment of Fort Beale Road	Determined ineligible (Jacobs [SHPO] to Petty [FHWA], 03/09/2020)
ASM = Arizona State Museum		

*Environmental Consequences – Preferred Alternative*

A total of nine NRHP-eligible historic properties and one previously unevaluated cultural resources site are plotted within or directly adjacent to the project’s APE. These sites, their potential impacts, and management recommendations are discussed below.

AZ F:16:1(ASM), Camp Beale Springs, is located adjacent to the APE. In this area, new ROW would be required but no construction would occur within the site boundary. The site will be flagged for avoidance during construction.

AZ F:16:14(ASM) is a rock shelter plotted in multiple locations, including within ADOT ROW in the APE. Subsequent investigations of the ADOT ROW in this location have not identified the site, indicating that it is either misplotted or no longer exists. As a result, no further mitigation measures would be required.

AZ F:16:21(ASM) is a previously recorded multicomponent site with an artifact scatter, rock alignments, and possible wickiup rings. It is located inside the APE but outside of where construction would occur. No further mitigation measures would be required.

AZ F:16:24(ASM), a rock shelter, is located in an area where drainage improvements including a box culvert would be constructed. This site cannot be avoided by construction. Data recovery in accordance with the PA would occur.

AZ F:16:32(ASM) is a low-density artifact scatter, rock alignment, and possible wickiup ring possibly representing a historic Hualapai campsite. It is inside the APE but outside the area where construction

would occur and would be avoided by project construction. No further mitigation measures would be required.

AZ:F:16:37(ASM), the Prescott-Mohave Toll Road Hardy Toll Road/Kingman Mineral Park road alignment and associated artifact scatter, is located where the TI would be constructed and cannot be avoided by construction. Archival documentation in accordance with the PA would occur prior to construction.

AZ:F:16:48(ASM), a camp consisting of four rock shelters, is located in the APE where road widening activity would be required. Avoidance flagging would occur prior to construction.

AZ F:16:99(ASM) is an early twentieth century artifact scatter. It is within the APE but outside of where construction would occur. The site would be avoided. No further mitigation measures would be required.

AZ F:16:106(ASM) is a historic campsite. The site cannot be avoided; therefore, planned construction would adversely affect this site. Data recovery would be conducted prior to construction in accordance with the PA and Historic Properties Treatment Plan (HPTP).

AZ I:14:5(ASM) was originally recorded and determined eligible as a contributing segment of the Beale Wagon Road. Archival research revealed that the road segment in the project limits is a local historic-era connector and not associated with the Beale Wagon Road. It is recommended as ineligible both as a contributor to the Beale Wagon Road and as an individual site.

A PA for this project to mitigate adverse effects to these historic properties was executed on July 1, 2014. Given the changes to the project scope and limits, an addendum to this PA has been developed and circulated in Section 106 consultation. All signatures have been obtained, and the PA has been filed with the Advisory Council on Historic Preservation. The provisions of the amended PA would be implemented prior to construction.

#### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, the new, free-flow I-40/US 93 traffic interchange would not be constructed. No impacts to cultural resources would occur.

#### *Environmental Commitments and/or Mitigation Measures*

The treatment of affected resources would be undertaken prior to construction as directed in the amended project-specific PA and specified in the HPTP developed for this project.

#### Contractor Responsibility

- The contractor would contact the ADOT Environmental Planning Historic Preservation Team (602.712.6371 or 602.712.7767) 14 days prior to construction to ensure that the terms and stipulations of the project-specific Programmatic Agreement have been fulfilled.

### *Conclusion*

A total of 24 cultural resources sites occur within, or directly adjacent to, the APE of the Preferred Alternative. Of these, a total of 14 have been previously determined ineligible for inclusion in the NRHP; one additional site is assumed to be destroyed or misplotted in the APE. No further mitigation provisions are required for these 15 sites.

The remaining nine sites are historic properties that have been previously determined eligible for inclusion in the NRHP. Six of these sites would be avoided by project construction, and no further mitigation provisions are required for them.

Three sites (AZ F:16:37[ASM], AZ F:16:48[ASM] and AZ F:16:106[ASM]) cannot be avoided by construction. AZ F:16:37(ASM) is an intact segment of the Prescott-Mohave Toll Road/Kingman-Mineral Park Road/Hardy Toll Road. The road would be impacted by construction; however, the road in its entirety (165 miles) would not be adversely affected by this project. Development of a detailed archival history of the roadway is appropriate mitigation for the impact of construction on this small segment of the overall road. AZ F:16:48(ASM) and AZ F:16:106(ASM) are archaeological sites that would be impacted by construction. Both of these sites have the potential to contain important data; an appropriate mitigation of the impact of construction on these sites is the implementation of a focused data recovery program.

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## F. Section 4(f) Resources

As originally defined under Section 4(f) of the *Department of Transportation Act of 1966* (Public Law 89-670, 80 Stat. 931) and subsequently under 49 U.S.C. 303, 23 U.S.C. 138, and 23 CFR 774, FHWA and other U.S. Department of Transportation agencies cannot approve the use of land from significant publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless there is no feasible and prudent alternative to the use of that land, and that the proposed action includes all possible planning to minimize harm to the property resulting from such use.

### Criteria

There are four criteria on which recreational resources are evaluated to determine if they are afforded protection under Section 4(f). These include:

- **Public Ownership** – The property is publicly owned through fee simple ownership, a public easement, or a long-term lease agreement. For recreational areas, the official with jurisdiction (OWJ) must also be operated and managed by the public agency for the primary purpose of public recreation.
- **Primary Purpose** – the property is designated as a public park, recreation area, or wildlife and waterfowl refuge and the primary purpose of the property is for recreation activities or wildlife and waterfowl refuge.
- **Open to Public** – Property must be open to the public.
- **Significance** – The property serves a major recreational role. The significance is determined by the OWJ.

### Types of Use

A “use” of a Section 4(f) resource, as defined in 23 CFR §774.17, occurs when: property from a Section 4(f) site is permanently acquired and permanently incorporated into a transportation facility (permanent incorporation); there is a temporary occupancy of land that is adverse in terms of preserving the integrity of the Section 4(f) property (temporary occupancy); or proximity impacts of a transportation project on a Section 4(f) property, without acquisition of land from that property, are so great that the characteristics that qualify the property as Section 4(f) property are substantially impaired (constructive use).

### De Minimis Impact on Non-Historic 4(f) Sites

An impact to a Section 4(f) property may be determined to be de minimis if the transportation use of the resource does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f). For parks or recreation areas, the official(s) with jurisdiction over the property must be informed of the intent to make a de minimis determination and the public must be provided an opportunity to review and comment.

### *Existing Conditions*

Each resource potentially afforded protection under Section 4(f) was reviewed to determine if there would be a use of the property.

Table 16 lists publicly-owned recreational facilities identified as occurring within the project area and within the project vicinity. No wildlife or waterfowl refuges occur within the study area. Recreational areas and historical sites occur within the study area. The table identifies the type and location of the resource, jurisdiction or owner, features of the resource, whether it is afforded protection under Section 4(f), and the anticipated use of the resource. Recreational resources that are afforded protection under Section 4(f) are depicted in Figure 11. Those resources identified as Section 4(f) resources warranting further analysis are then discussed in the subsequent section.

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**Table 16. Section 4(f) Resources, Characteristics, and Criteria**

Map ID	Name	Location/Proximity	Officials with Jurisdiction	Description of Property	Criteria
1	Cerbat Cliffs Golf Course  Recreational Resource	South of I-40 and west of the Stockton Hill Road TI adjacent to the project.	City of Kingman owns, operates, and manages the golf course.	18-hole golf course with pro shop and bar/restaurant	-Publicly owned.  -Primary Purpose is for recreation.  -Open to the public.  -Significance – golf course is determined to be significant by the OWJ
2	Cerbat Foothills Recreation Area (CFRA)  Recreational Resource	Extends from north of the intersection of State Route (SR) 68 east near the intersection of Fort Beale Dr and Beale St and south to near the intersection of Shinarump Rd and Oatman Rd.  Occurs within and adjacent to the project limits on both sides of US 93.	CFRA is operated and managed by the City of Kingman and Bureau of Land Management, based upon the underlying land ownership. The portion of CFRA affected by this project is under the jurisdiction of Kingman.	Day-use trails and picnic sites	-Publicly owned.  -Primary Purpose is for recreation.  -Open to the public.  -Significance – CFRA is determined to be significant by the OWJ
3	Camp Beale Springs (also known as Old Fort Beale and Beale Springs)  Recreational and Historical resource	Within the CFRA at the intersection of Fort Beale Dr and Wagon Trail Rd; adjacent to the project area.	City of Kingman/ SHPO	A publicly-owned recreation area including a historical site, interpretive signs, camping area, and trails/trailhead.  Previously recorded multicomponent cultural resources site.	-Publicly owned.  -Primary Purpose is for recreation; is a cultural site listed under criteria A and D.  -Open to the public.  -Significance – Camp Beale Springs is determined to be significant by the OWJs
4	Prescott-Mohave Toll Road Hardy Toll Road/Kingman Mineral Park road  Historical Resource	Crosses the project limits and cannot be avoided.	SHPO	Historic road alignment and associated artifact scatter	-Publicly owned.  -Cultural resources site eligible for listing under the NRHP under Categories A and C.  -Open to the public.  -Significance – site is determined to be significant by the OWJ.

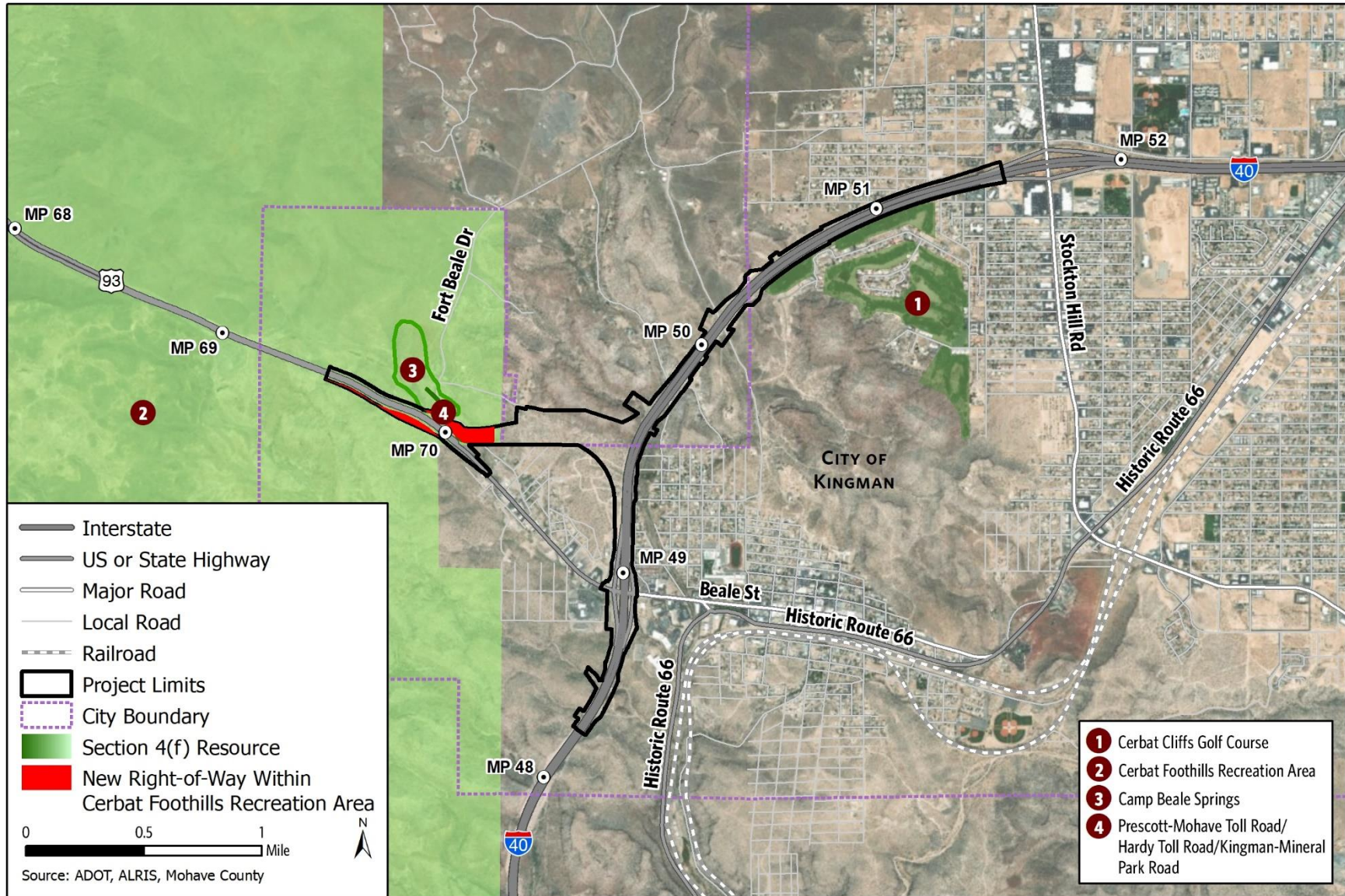


Figure 11. Section 4(f) Resources

*Environmental Consequences – Preferred Alternative*

A summary of resources afforded protection under Section 4(f) is provided in Table 17. It identifies whether a direct use occurs, the extent or nature of the use, and ADOT’s finding for that resource. No constructive use or temporary occupancy would occur.

**Table 17. Section 4(f) Resources and Project Use**

Map ID	Name	Use	Description of Use	Finding
1	Cerbat Cliffs Golf Course  Recreational Resource	No use.	Located outside the project limits. Temporary traffic delays and congestion during construction but access would be maintained.	Not applicable.
2	Cerbat Foothills Recreation Area (CFRA)  Recreational Resource	Use.	Approximately 12.65 acres of the 11,300-acre recreation area would be needed along US 93 to widen the ROW.  Improvement consistent with 2030 General Plan	<i>De Minimis</i> use.  Acquisition would constitute approximately 0.11 percent of the land in the CFRA.  Would not adversely affect the activities, features, and attributes that would qualify the resource for protection under Section 4(f).
3	Camp Beale Springs  Recreational and Cultural Resource	No use.	Located outside the project limits. Temporary traffic delays and congestion during construction but access would be maintained.	Not applicable.
4	Prescott-Mohave Toll Road Hardy Toll Road/ Kingman Mineral Park road  Historical Resource	Use.	The site has been determined eligible for listing on the NRHP under Criterion A.  Of the 165-mile long road, there are two segments in the project vicinity: Segment 1 – 1,600 feet within the project limits, and Segment 2 that extends 1,500 feet into Camp Beale Springs.	<i>De Minimis</i> use.  The more significant components of the road are located in Segment 2 and would be avoided. Impacting 1,600 feet of 165 miles of road.  The total overall site would not adversely affect the activities, features, and attributes that would qualify the resource for protection under Section 4(f).

The Cerbat Cliffs Golf Course, Camp Beale Springs recreation area and cultural site are located outside of the project limits. While temporary traffic delays and congestion associated with construction would be experienced, the access to the golf course and Camp Beale Springs would be maintained at all times. No long-term impacts would occur.

Within the CFRA, the proposed 12.65 acre-acquisition of new ROW represents 0.11 percent of the total recreational area. No trails or trailheads occur in the proposed new ROW. The extent of this use would be minor and would not adversely affect the activities, features, and attributes that would qualify the resource for protection under Section 4(f). Conversion of 12.65 acres from recreation to transportation would result in a *de minimis* direct use of the resource. The Preferred Alternative would result in a minor long-term impact on the CFRA.

During design of the project, measures to minimize harm to the CFRA were considered. These included shifting and reducing the alignments and geometry where feasible to minimize the amount of required new ROW to the greatest extent possible. In addition, the use of the highway underpass that conveys a trail to the west of the project for construction access was eliminated from further consideration to minimize impact to the CFRA and recreational users.

Approximately 1,600 feet of the Prescott-Mohave Toll Road Hardy Toll Road/Kingman Mineral Park road within the project limits near MP 70 along US 93 would not be avoidable by project construction. The segment within the project limits (Segment 1) retains its historic integrity and is a contributing segment to the historic property's overall eligibility. The 1,500-foot alignment outside of the project limits extending into Camp Beale Springs (Segment 2) exhibits more significant components of the road including wagon ruts and will be avoided. The road is also 165 miles in length and impacting 1,600 feet of the total overall site would not adversely affect the activities, features, and attributes that would qualify the resource for protection under Section 4(f). As part of the Section 106 consultation for this project, ADOT informed SHPO of a determination to make a *de minimis* impact finding on the portion of the Hardy Toll Road within the project limits. SHPO concurred with this finding on February 19, 2020. Prior to construction, this resource would be documented as required by the project-specific Project Assessment and as specified in the HPTP.

A meeting between ADOT and the City of Kingman Parks Department was held on April 1, 2020. During this meeting, ADOT explained the project, discussed Section 4(f), and identified the potential uses of the CFRA that have been identified. In addition, the City of Kingman expressed a concern that moving the road closer to the golf course could result in an increased number of golf balls entering the ROW. The City of Kingman agreed that the project would result in a *de minimis* impact or use of the Section 4(f) resources. Following the public review period for this Draft EA, ADOT will submit formal documentation to the City of Kingman for concurrence on the *de minimis* finding for the CFRA and Cerbat Hills Golf Course. Coordination with the City of Kingman would be ongoing through the design process.

The public is invited to review these findings as well and provide any comments on the *de minimis* finding. Information on how to provide your comments is included in Section V of this document.

#### *Environmental Consequences – No-Build Alternative*

No construction would occur, and no new ROW would be acquired with the No-Build Alternative. Therefore, there would be use of Section 4(f) properties.

### *Environmental Commitments and/or Mitigation Measures*

Measures have been taken to minimize harm to the CFRA. No mitigation would be necessary for Section 4(f) impacts because there would either be no use of the resources or a very minor or *de minimis* use. A HPTP would be developed that would specify measures to minimize harm for historical properties (refer to Section IV.D, Cultural Resources).

### *Conclusion*

Three publicly owned recreational areas and one historic property that are potentially afforded protection under Section 4(f) occur within the project limits and vicinity. Approximately 12.65 acres of the CFRA would be required for new ROW under the Preferred Alternative. This use was determined to be *de minimis* in nature, resulting in a minor negative impact on the resource. No use would occur for the other two recreational resources. The use of the Prescott-Mohave Toll Road Hardy Toll Road/Kingman Mineral Park road would affect 1,600 feet of Segment 1. Segment 2, with the more significant components of the road would not be affect. The use was determined to be *de minimis* in nature. Overall there would be a minor negative impact on Section 4(f) resources.

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## G. Traffic and Transportation

US 93 is an important segment of the regional transportation infrastructure, moving people and goods between Phoenix and Las Vegas. The West Kingman TI is a critical segment because it is the only service interchange location that requires traffic to exit the I-40 mainline onto a local street (Beale Street) to continue onto US 93.

### Traffic Volumes

The 2017 AADT were obtained from ADOT. An annual growth rate of 2.3 percent, which is consistent with that used during the previous 2014 traffic report, was applied to project 2019, 2022, and 2042 traffic volumes (Table 18). The 2022 AADT reflects the opening year of the first phase of improvements (high-volume ramps), while the 2042 AADT incorporates the second phase of construction (low-volume ramps). As the phased construction occurs, it is anticipated that traffic moving between Phoenix and Las Vegas and between Los Angeles and Las Vegas would divert to the new direct ramps.

**Table 18. Existing and Future Average Annual Daily Traffic Volumes**

Route	MP	Segment	2019	2022 (Phase I)	2042 (Phase II)
I-40	47.13	Shinarump Road to Beale Street	15,179	16,250	25,608
I-40	50.50	Beale Street to Stockton Hill Road	41,134	44,038	69,397
US 93	70.70	SR 68 to I-40	26,182	28,030	44,172

Source: ADOT 2020a

ADOT's 2018 AADT data indicates that trucks comprise 41 percent and passenger vehicles comprise the other 59 percent of the traffic on I-40 south of the Beale Street TI, and 18 percent trucks and 82 percent passenger vehicles on I-40 north of the Beale Street TI. On US 93 west of the Beale Street TI, trucks represent 34 percent of total traffic volumes while the remaining 56 percent is passenger vehicles.

Additional data for mainline traffic and turning movements was collected in May 2019. Peak hour traffic occurs on Friday afternoons, as traffic moves from Phoenix to Las Vegas.

### Operational Analysis

The Beale Street TI and Stockton Hill TI were analyzed using Synchro traffic analysis software. The freeway, ramp, and merge/diverge areas were analyzed using the VISSIM microsimulation software. As described in the *Purpose and Need*, LOS is a qualitative measure of traffic operations at an intersection or on a roadway segment. Because the area I-40 within the project limits is classified as urban/fringe urban, improvements should be designed to operate at LOS D or better. For intersections, this is established as an overall intersection operating at LOS D or better. Table 19 summarizes the operational analysis for existing and future conditions. The LOS value provided it at peak hours. Other times would perform better because of reduced traffic volumes.



**Table 19. Existing and Future Peak Hour Operations**

Location	2019	2022 (Phase I)	2022 No Build	2042 (Phase II)	2042 No Build
Beale Street TI ramp terminal intersections	LOS C	LOS C	LOS C	LOS C	LOS F
Beale Street TI approaches	LOS D	LOS C	LOS D	LOS D	LOS F
Stockton Hill Road TI terminal intersections	LOS C	LOS C	LOS C	LOS E	LOS E
Stockton Hill Road TI approaches	LOS D	LOS D	LOS D	LOS F*	LOS F*
I-40 mainline, merge/diverge areas, and ramps	LOS D	LOS B	Not Available	LOS D	Not Available
US 93 mainline, ramps, and merge/diverge areas	LOS C	LOS B	Not Available	LOS D	Not Available

Source: ADOT 2020a

\*Improvement to Stockton Hill Road is outside the scope of this EA and will be addressed under a future project.

### *Environmental Consequences – Preferred Alternative*

Using the 2022 for Phase I of the geometry, traffic volumes, and signal timing, the LOS and delay were developed for each intersection and freeway/highway segment (see Table 19).

Phase I of the Preferred Alternative would improve transportation conditions by reducing congestion and providing a high-speed interchange between I-40 and US 93. The Preferred Alternative meets the project purpose and need by increasing capacity and operational efficiency of the interchange, improving local and regional access and connectivity and eliminating the “bottleneck” between I-40 and US 93.

By 2042, the Stockton Hill Road TI is expected to reach undesirable LOS due to an increase in background traffic (i.e. traffic from approved projects, population growth, etc.); improvement to this TI is outside the scope of this project and would be addressed with a future project.

### Construction Impacts

Construction of Phase I of the Preferred Alternative would last approximately two years. During construction, some traffic disruption is expected to occur on US 93 and I-40, particularly as bridge structures are widened and rehabilitated and ramps are constructed and connected with the existing roadway network.

Project construction would include blasting rock. The blasted rock would then be repurposed to create aggregate for use in the project. This would require the temporary placement and use of a screening plant that would be located within the new right of way. The contractor would use the ultimate project limits area for storage and stockpiling and screening purposes. Equipment that would be used to excavate the

roadway and construct embankments would include but is not limited to bulldozers, large rock trucks, scrapers, water pulls, graders, loaders, and compactors.

Drilled shafts would be necessary for bridge construction. Several large track cranes with large drills to complete the drilled shafts and for the bridge construction in general would be used. Concrete pump trucks would be used to supply concrete for bridge construction.

Paving activities would include activities such as placing rock material and pavement using trucks, graders, compactors, and paving machines, and drill trucks to place items such as guardrail, sign structures, and traffic signs. The roadway would be striped several times using a typical truck mounted striper.

Both daytime and nighttime work would occur. Nighttime work would mostly occur on US 93 to accommodate traffic demands and a lack of available detour routes. It is anticipated that WB I-40 would be widened to the median first to provide sufficient room for bridge construction. Many activities would overlap, and many of the activities would not be sequential.

#### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, traffic volumes would continue to increase over time and would not be diverted away from the Beale Street TI. The 2014 traffic report indicates that the interim roadway improvements constructed at the Beale Street TI in 2016 will not accommodate traffic volumes beyond the year 2026 and will result in unacceptable LOS for the 2042 traffic volumes.

Conditions at the Stockton Hill Road TI would continue to deteriorate, and by 2042, three approaches and the I-40 EB ramps would reach LOS E or worse.

There would be no construction impacts associated with the No-Build Alternative.

#### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor would follow ADOT's *Temporary Traffic Control Design Guidelines* and ADOT's *Standard Specifications for Road and Bridge Construction*.

#### *Conclusion*

As described in Section I.C, *Project Background and Overview*, the I-40/US 93 TI has been the subject of several studies, all of which concluded that a new free-flowing interchange would be a necessary component to long-term operational improvements. The Preferred Alternative improves capacity by adding directional ramps for vehicles traveling between Phoenix and Las Vegas. The Phase I improvements indicate an acceptable LOS would be maintained on the I-40 and US 93 mainline, ramps, and intersections leading up to 2042, when localized growth would lead to unacceptable LOS for several movements at the Stockton Hill Road TI.

## H. Air Quality Analysis

In the United States air quality is regulated by the Clean Air Act (CAA) of 1970 and the Clean Air Act Amendments (CAAA) of 1990, which are administered by the U.S. Environmental Protection Agency (EPA). Federal air quality standards and regulations provide guidelines for project-level air quality analysis under NEPA. In addition to NEPA analysis, a parallel transportation conformity requirement under the CAA also applies for areas that are nonattainment or maintenance for any National Ambient Air Quality Standard (NAAQS). The CAAA directed the EPA to implement environmental policies and regulations that will ensure acceptable levels of air quality. Under the Transportation Conformity section of the CAAA, Section 176 (c), a project cannot do the following:

- Cause or contribute to any new violation of any NAAQS in any area
- Increase the frequency or severity of any existing violation of any NAAQS in any area
- Delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in any area

Under the CAAA, the Intermodal Surface Transportation Efficiency Act of 1991, the Transportation Equity Act for the 21st Century, and the Moving Ahead for Progress in the 21st Century Act, proposed transportation projects must be derived from a long-range transportation plan or regional transportation plan that conforms with the state air quality plans as outlined in the State Implementation Plan (SIP). The SIP sets forth the state's strategies for achieving air quality standards. The EPA's Transportation Conformity Rule requires conformity determinations from proposed transportation plans, programs, and projects before they are approved, accepted, funded, or adopted. The assessment evaluates regional air quality conformity and the results are documented in a regional transportation plan. The analysis and plan are coordinated with ADOT, the EPA, the FHWA, the Federal Transit Administration (FTA), and the Arizona Department of Environmental Quality (ADEQ).

The West Kingman TI project is listed in the *FY 2019 – 2023 ADOT State Transportation Improvement Program (STIP)* approved by the U.S. Department of Transportation, FHWA and FTA on February 9, 2019 (U.S. DOT 2019) and the *ADOT 2020 – 2024 Five-Year Transportation Facilities and Construction Program (ADOT 2019a)*. The *WACOG Strategic Transportation Safety Plan* identifies the need for safety improvements on the I-40 ramps to Beale Street (WACOG 2018). Because the project is located in an area that has always been in attainment with the NAAQS, conformity requirements are met, and air quality is assessed under NEPA.

### *Local Topography and Climate*

Mohave County terrain varies in elevation from 482 feet above sea level at Lake Havasu City to the 8,417-foot Hualapai Peak southeast of Kingman. Dominant land types include rangeland, recreation, urban land, and woodland. Major land resource areas include the Mohave Desert, the Colorado Plateaus, and the Mogollon Transition. Physiographically, the area around Kingman consists of four main mountain ranges and three broad valleys. The geology of the area consists primarily of granite with varying amounts

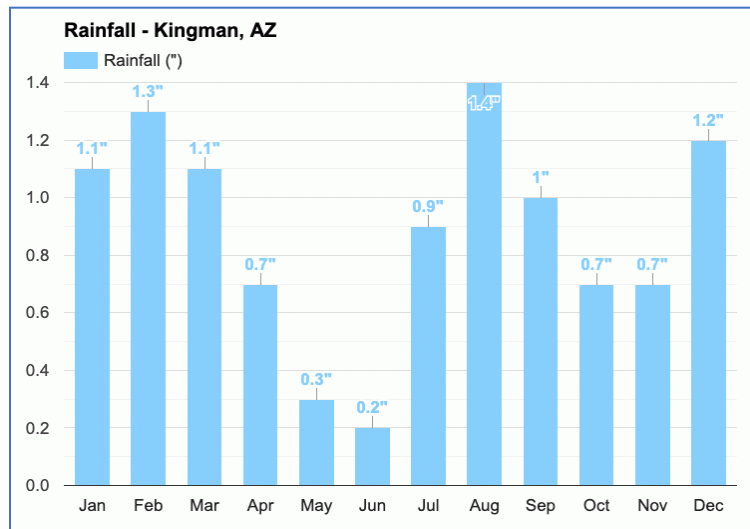
of basalt, schist, and andesite (U.S. Department of Agriculture and Natural Resources Conservation Service 2020).

Kingman sits on the eastern edge of the Mojave Desert. The area receives slightly more precipitation than the hot desert climate found to the south and west, and the wintertime low temperatures are significantly colder (Table 20).

**Table 20. Average Temperatures for Kingman, Arizona**

Season	Average Temperature
Summer	Highs 94 °F rarely exceeding 107 °F Lows 67 °F
Winter	Highs 56 °F Lows 32 °F but can drop well below freezing

As shown in Figure 12, Kingman receives about 10 inches of rainfall annually with peak periods in late summer and winter (Weather Atlas 2020). Kingman occasionally receives a dusting of snow in the winter, though it rarely remains on the ground for longer than the mid-to-late morning.



**Figure 12. Monthly Rainfall - Kingman, AZ**

**Criteria Pollutants NAAQS**

The NAAQS establish maximum allowable concentrations for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide, ozone(O<sub>3</sub>), particulate matter (including particles of 10 micrometers or smaller [PM<sub>10</sub>] and particles of 2.5 micrometers or smaller [PM<sub>2.5</sub>]), sulfur dioxide, and lead (Pb) (Table 21). A NAAQS is comprised of two parts: an allowable concentration of a criteria pollutant and an averaging time over which the concentration is to be measured. Primary NAAQS define levels of air quality with an adequate margin of safety that set limits to protect public health and the most sensitive populations, such as

asthmatics, children, and the elderly. Secondary NAAQS define levels of air quality judged necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. The project vicinity, Kingman, and Mohave County are in attainment for all criteria pollutants.

**Table 21. National Ambient Air Quality Standards**

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		Primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		Primary and secondary	Rolling 3-month average	0.15 µg/m <sup>3</sup> <sup>(1)</sup>	Not to be exceeded
Nitrogen Dioxide (NO <sub>2</sub> )		Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Primary and secondary	1 year	53 ppb <sup>(2)</sup>	Annual mean
Ozone (O <sub>3</sub> )		Primary and secondary	8 hours	0.070 ppm <sup>(3)</sup>	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particulate Matter	PM <sub>2.5</sub>	Primary	1 year	12.0 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		Secondary	1 year	15.0 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		Primary and secondary	24 hours	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
	PM <sub>10</sub>	Primary and secondary	24 hours	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO <sub>2</sub> )		Primary	1 hour	75 ppb <sup>(4)</sup>	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Source: EPA; Notes: ppb = parts per billion; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m<sup>3</sup> as a calendar quarter average) also remain in effect.

(2) The level of the annual NO<sub>2</sub> standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

- (3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O<sub>3</sub> standards additionally remain in effect in some areas. Revocation of the previous (2008) O<sub>3</sub> standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.
- (4) The previous SO<sub>2</sub> standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (a) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (b) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO<sub>2</sub> standards or is not meeting the requirements of a SIP call under the previous SO<sub>2</sub> standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

### Carbon Monoxide

Motor vehicles are the predominant source of CO emissions in most areas. High levels develop primarily during winter when periods of light wind combine with ground-level temperature inversions. These conditions result in reduced dispersion of the CO in vehicle emissions. In addition, motor vehicles emit more CO in cool temperatures than in warm temperatures. CO is a public health concern because it combines readily with hemoglobin in human blood, reducing the amount of oxygen transported in the bloodstream. Effects on humans range from slight headaches to nausea to death. The federal CO standards set for both 1-hour and 8-hour averaging times regulate emissions in Arizona.

### Particulate Matter

Particulate matter refers to solid or liquid particles suspended in the air that may be composed of acids, organic chemicals, metals, or soil and dust particles. Emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere. Particle sizes range from those large enough to be seen as smoke or haze to those so small that they act as a gas and are visible only through an electron microscope. The size of particles is directly linked to their potential for causing health problems. Small particles pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream. People with heart or lung diseases, children, and older adults are the most likely to be affected by particle pollution exposure.

Sources of PM<sub>10</sub> include fugitive dust from unstable or disturbed dirt surfaces, vehicle travel on unpaved roads, crushing and grinding operations, and open burning. Sources of PM<sub>2.5</sub> include fuel combustion, power plants, and diesel vehicles. The federal PM<sub>10</sub> standards shown in Table 21 regulate emissions in Arizona .

### Ozone

O<sub>3</sub> occurs both in the Earth's upper atmosphere and at ground level and can be good or harmful to human health, depending on where it is found. Called stratospheric ozone, good O<sub>3</sub> occurs naturally in the upper atmosphere, where it forms a protective layer that shields us from the sun's harmful ultraviolet rays. At ground level, O<sub>3</sub> is a harmful air pollutant, because of its effects on people and the environment, and it is the main ingredient in "smog." O<sub>3</sub> precursors, which include oxides of nitrogen and reactive organic gases,

react in the atmosphere in the presence of sunlight to form O<sub>3</sub>.

### *Mobile Source Air Toxics*

Under the Clean Air Act, the EPA also regulates 187 hazardous (or toxic) air pollutants. Toxic air pollutants are those pollutants known or suspected to cause cancer or other serious health effects. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners), and stationary sources (e.g., factories or refineries). Mobile source air toxics (MSATs) are a subset of the air toxics defined by the CAA and consist of 93 compounds emitted from highway vehicles and non-road equipment.

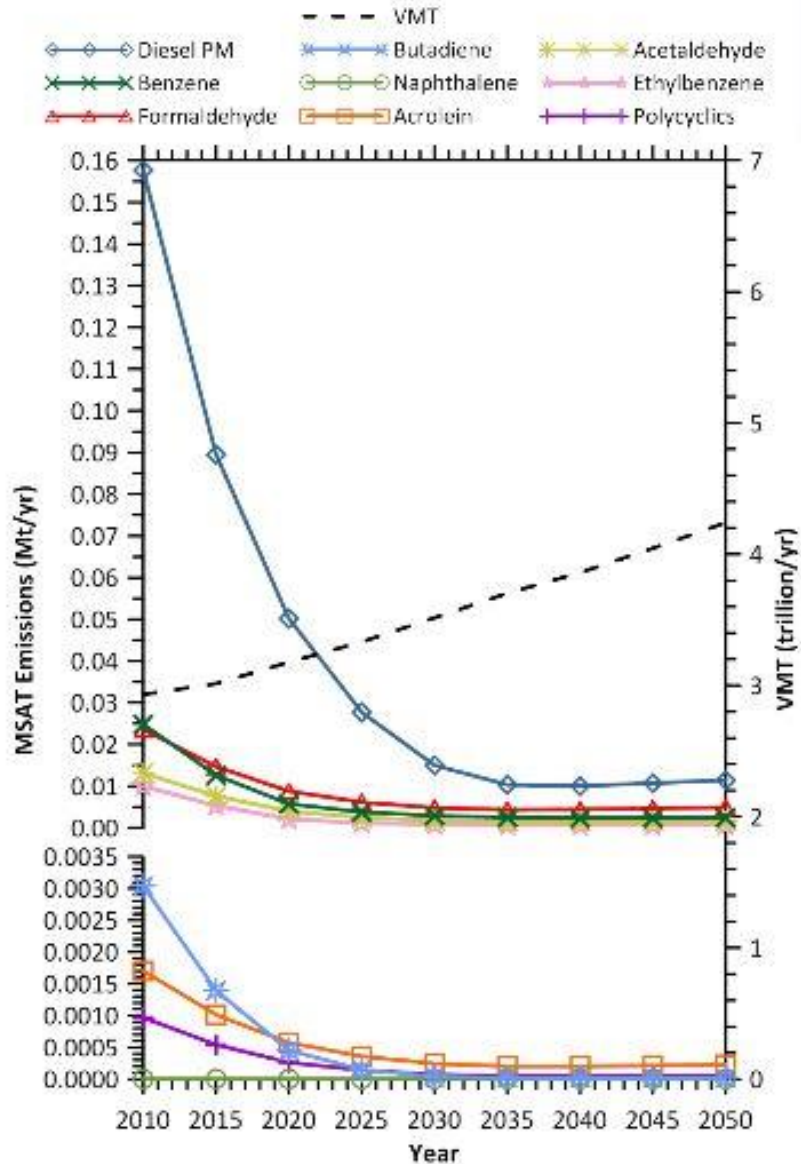
Controlling air toxic emissions became a national priority with the passage of the CAAA of 1990, whereby Congress mandated that EPA regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in its latest rule on the *Control of Hazardous Air Pollutants from Mobile Sources* and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (Federal Register 2007, p. 8428). In addition, the EPA identified nine compounds with significant air quality contributions from mobile sources that are among the national- and regional-scale cancer risk drivers or contributors and non-cancer hazard contributors from the 2014 *National Air Toxics Assessment* (EPA 2014). These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel PM, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter.

The 2007 EPA rule requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. In 2015, EPA released an updated version of its Motor Vehicle Emission Simulator (MOVES2014a) for modeling criteria pollutants, greenhouse gases, and air toxics. Using EPA's MOVES2014a model, FHWA estimates that even if vehicle miles traveled (VMT) increases by 45 percent from 2010 to 2050 as forecasted, a combined reduction of 91 percent in the total annual emissions for the priority MSATs is projected for the same period (FHWA 2016; Figure 13).

### *Greenhouse Gases*

The transportation sector is responsible for approximately 28 percent of greenhouse gas (GHG) emissions, which are directly linked to global warming and climate change (U.S. DOT 2019). The GHGs associated with transportation are carbon dioxide, methane, and nitrous oxide. Vehicles emit GHGs through the burning of gasoline and diesel fuels. To date, no national standards have been established for GHGs, nor has EPA established criteria or thresholds for GHG emissions.

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**Figure 13. FHWA Projected National MSAT Emission Trends 2010 – 2050 for Vehicles Operating on Roadways**

*Existing Conditions*

The project is in an area designated as attainment for all criteria pollutants. The Bullhead City PM<sub>10</sub> maintenance area is located approximately 22.5 miles to the west. The ADEQ currently operates a station located on 990 Highway 95 Bullhead City, AZ. Data collected at this monitoring station helps to determine the current air quality status relative to the PM<sub>10</sub> 24-hour NAAQS, to determine air quality trends, and to assist in forecasting air quality trends. Over the past three years, the average 24-hour concentration are



125  $\mu\text{g}/\text{m}^3$  (2017), 118  $\mu\text{g}/\text{m}^3$  (2018), and 92  $\mu\text{g}/\text{m}^3$  (2019), respectively. The trends indicate that  $\text{PM}_{10}$  levels are steadily declining, and Mohave County continues to attain the NAAQS for this criteria pollutant.

### Class I Areas

Under the provisions of the CAA, the EPA has designated a number of areas in Arizona as Mandatory Class I Federal Areas, where visibility is an important value. These include national parks and wilderness areas. These mandatory Class I areas are listed in 40 CFR 81.406. Of the mandatory Class I areas, Grand Canyon National Park is the closest to the study area. The nearest boundary of the park is approximately 48 miles northwest of the project limits.

## *Environmental Consequences – Preferred Alternative*

### MSATs

The Preferred Alternative was screened for potential MSAT impacts and compared to the No-Build Alternative. FHWA's *Updated Interim Guidance on Air Toxic Analysis in NEPA Documents* (FHWA 2016) provides a tiered approach for evaluating MSAT impacts, and includes three levels of analysis:

- No analysis for projects with no potential for meaningful MSAT effects
- Qualitative analysis for projects with low potential MSAT effects
- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects

### *Projects with Low Potential MSAT Effects*

Examples of projects with low potential MSAT effects include minor widening projects; new interchanges; replacing a signalized intersection on a surface street; and projects where design year traffic is projected to be less than 140,000 to 150,000 AADT. For this study, the *Change of Access Report, I-40/US 93 West Kingman Traffic Interchange* (ADOT 2020a) Projected AADT for the 2042 design year is 25,608 vehicles per day south of Beale Street to 69,397 north of Beale Street (see Table 18 in Section IV.G), which is well below the 150,000 vehicle per day threshold used by FHWA to define a project with low potential MSAT effects and for which a qualitative (Level II) analysis of MSAT emissions is appropriate.

The amount of MSATs emitted is proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. For this study, AADT was used as a proxy for VMT. As previously shown in Table 18, an approximate 7-percent increase in AADT, and VMT by proxy, is predicted on I-40 and US 93 within the study limits between 2019 and Phase I design in 2022. The increase is based on an annual 2.3 percent increase in traffic within the study area. By completion of the Phase II design in 2042, AADT, and VMT by proxy, would increase by approximately 58 percent. The increase in VMT would suggest an increase in MSAT emissions in the study area; however, emissions would be offset somewhat by lower emission rates due to increased speeds.

According to EPA MOVES2014a model, emissions of all the priority MSAT decrease as speed increases. The MOVES2014 series model incorporates the effects of three new Federal emissions standard rules not included in the previous iteration of the model, MOVES2010. These new standards are all expected to impact MSAT emissions and include Tier 3 emissions and fuel standards starting in 2017 (79 FR 60344),

heavy-duty greenhouse gas regulations that phase in during model years 2014-2018 (79 FR 60344), and the second phase of light duty greenhouse gas regulations that phase in during model years 2017-2025 (79 FR 60344). Since the release of MOVES2014, EPA has released MOVES2014a, which includes minor updates to the default fuel tables, and corrects an error in MOVES2014 brake wear emissions results in small decreases in PM emissions.

Regardless of the project alternative chosen, emissions would likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (see Figure 13).

Local conditions may differ from these national projections in terms of vehicle fleet mix (cars, trucks, buses, etc.) and turnover (older vehicles replaced by newer vehicles over time), VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future for both the Preferred Alternative and No-Build Alternative. No long-term impacts would occur as a result of the Preferred Alternative. Short-term impacts associated with the initial operation of the Phase I and Phase II system interchange and associated freeway segments could create localized concentrations of MSAT emissions along the proposed alignment but those would be offset by reductions associated with improved traffic flow and lower VMT at the regional level; therefore, Phase I and Phase II of the Preferred Alternative would have no impact on air quality in the study area.

In addition to the qualitative assessment, a NEPA document for a new road project must include a discussion of information that is incomplete or unavailable for a project specific assessment of MSAT impacts, in compliance with the CEQ regulations (40 CFR 1502.22(b)). Also, in compliance with 40 CFR 150.22(b) this discussion should contain information regarding the health impacts of MSAT. A discussion of Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis is included in Appendix C this EA.

#### Construction Emissions

During construction, the use of machinery and equipment would result in an increased contribution of pollutants and dust. Water or other methods of minimizing dust would be implemented, and equipment would be properly maintained to minimize emissions. This increase in dust and pollutants during construction would result in a minor short-term impact on the local air quality.

Section 5-7(a) of the City of Kingman Municipal Code stipulates that dust in open areas during construction shall be controlled. Dust or other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.

#### *Environmental Consequences – No-Build Alternative*

Although a separate analysis of future AADT in 2022 and 2042 was not completed for the study, it is assumed that the No-Build Alternative would also have low potential MSAT effects based on projected 2042 AADT. VMT and MSAT emissions within the study area would be equivalent to the Preferred

Alternative and offset by EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (see Figure 13). The No-Build Alternative would not result in any short-term impacts within the project area and there are no long-term impacts or negative impacts that are associated with this alternative relative.

#### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor should follow ADOT's Air Quality Guidebook, ADOT's Standard Specifications for Road and Bridge Construction, and City of Kingman Municipal Code Section 5-7(a).

#### *Conclusion*

Because the project is located in an area which has always been in attainment with the NAAQS, conformity requirements for the Preferred Alternative are met. Proposed project-related emissions would not have an adverse effect on neighboring Class I areas or ambient air quality or cause a violation of the NAAQS for any criteria pollutant. Although AADT, and VMT as a proxy would increase within the study area for both the Preferred Alternative and the No-Build Alternative, any increase in future emissions would be more than offset by EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050.

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## I. Noise Analysis

Noise is generally defined as any loud or undesired sound. Sound (noise) is created when an object vibrates and radiates part of its energy as acoustic pressure or waves through a medium such as air, water, or a solid object. Sound levels are expressed in units called decibels (dB). For measuring noise in ordinary environments, A-weighted correction factors are used to give more weight to the frequencies that people hear more easily. The A-weighted decibel, or dBA places less emphasis on the very low and very high frequencies of sound in a manner similar to the response of the human ear. Therefore, dBA is a good correlation to a human's perception of loudness.

Traffic noise is a combination of the noises produced by vehicle engines, exhaust, and tires. The source of highway traffic comes from vehicles traveling on highways. The noise level at the source depends on pavement type, number of heavy trucks, traffic volumes, and traffic speeds. The predominant noise sources in vehicles at speeds less than 30 mph are engine and exhaust. At speeds greater than 30 mph, tire noise becomes the dominant noise source.

In accordance with the ADOT Noise Abatement Requirements (NAR) and FHWA noise regulations (23 CFR 772), a traffic noise analysis is required for Type I projects that receive federal funding or are otherwise subject to FHWA approval. Type I projects generally include construction of a highway on a new alignment, significant change in the horizontal or vertical alignment of an existing highway or adding new through lanes to an existing highway.

As required by 23 CFR 772.11(e), the point at which noise levels "approach" the Noise Abatement Criteria (NAC) established by FHWA is defined by ADOT as 1 dB(A), for Activity Categories A, B, C, D, and E (Table 22). Category F or Category G locations have no noise impact threshold. As required by 23 CFR 772.11(f), ADOT defines a substantial increase in noise levels as an increase of 15 dBA in the predicted noise level over the existing noise level.

### *Existing Conditions*

The study area was divided into six sections to conduct measurements and analysis. The following characterizes these areas:

- **East of I-40, south of Clack Canyon Road** - a total of 86 receivers were modeled representing 138 Activity Category B, C, D, and E receptors, including the Fort Beale RV Park, Positive Alternative Campus School, Arizona Inn, Motel 6, City Park Addition, Monte Vista #1, Stowell Addition, the Longview Addition neighborhoods, and unnamed residential areas.
- **I-40 at Clack Canyon Road** – Six receivers were modeled representing six Activity Category B receptors, three on either side of I-40 and north of Clack Canyon Road.

**Table 22. FHWA Noise Abatement Criteria**

Activity Category	dB(A), L <sub>eq(h)</sub> *	Activity Description
A	57 (exterior)	Land on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 (exterior)	Residential
C	67 (exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio structures, recording studios, schools, and television studios
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in categories A–D or F
F	---	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G	---	Undeveloped lands that are not permitted

Source: FHWA 2011b. Note: \*The 1-hour equivalent loudness in A-weighted decibels, which is the logarithmic average of noise over a 1-hour period.

- East of I-40, south of Stockton Hill Road** – A total of 91 receivers were modeled representing 211 Activity Category B, C, and E receptors. Category B uses include the Country Club Canyon Estates, Cerbat Country Club Estates, Country Club Manor, and Kingman Golf Course Estates neighborhoods. Category C land uses include four assisted living facilities (Gardens at Kingman Assisted Living Facility, Kingman Gardens Rehab and Care Center, Helen’s Place Adult Living, and the Lingenfelter Center for Alzheimer’s Care) and Cerbat Cliffs Golf Course. Category E land uses include office space and the Home2Suites Hotel.
- West of I-40, south of Stockton Hill Road** – A total of 61 receivers were modeled representing 110 Activity Category B, C, D, and G receptors. Category B land uses include the Cimarron Apartments; single-family, multi-family, and mobile homes in the Kingman Country Club Addition; and unnamed residential areas. Category C land use includes the basketball court at the Cimarron Apartments. The Category D land use includes patient rooms at the Kingman Regional Medical

Center Urgent Care, and Category G land uses include vacant residential parcels in the Kingman Country Club Addition and unnamed residential areas.

- **West of I-40, north of US93/Beale Street** – A total of 55 receivers were modeled representing 62 Activity Category B, C, and E receptors. Category B land uses include the Kingman Place Apartments; and single-family, multi-family, and mobile homes in Metcalfe Acres, Monte Vista, and unnamed residential areas. Category C land uses include two gazebos and a basketball court at the Kingman Place Apartments and the Camp Beale Springs parking area and trail.
- **West of I-40, south of US93/Beale Street** – A total of 11 receivers were modeled representing 11 Activity Category B, C, and G receptors. Category B land uses include single-family homes in Metcalfe Acres and in an unnamed residential area. Category C land uses include three locations on the Camp Beale Monolith Connector trail. Category G land uses include vacant parcels in the Metcalfe Acres neighborhood and an unnamed residential area.

### *Environmental Consequences – Preferred Alternative*

The Noise Analysis Technical Report (ADOT 2020c) provides information on the receivers identified in the study area, including the identification and description, predicted noise levels, and noise mitigation considerations. The existing noise levels and the modeled anticipated noise levels for the Preferred Alternative as compared to the No-Build Alternative are provided below.

#### **East of I-40, South of Clack Canyon Road**

- Existing: 41 dBA to 70 dBA
- Preferred Alternative: 43 dBA to 73 dBA
- No-Build Alternative: 43 dBA to 72 dBA

For the Preferred Alternative, exceedances of the Category B NAC are predicted at 17 homes in the Monte Vista #1 and Longview Addition neighborhoods and 3 homes in unnamed residential areas. In addition, impacts are predicted to occur at one stall and the pool area in the Fort Beale RV Park and outdoor common areas at the Arizona Inn and Motel 6 motels. Therefore, consideration of abatement measures is warranted.

Noise levels would decrease for some receptors due to the shielding provided by a retaining wall and fill on the I-40 EB to US 93 WB ramp before it crosses I-40. In all areas described below, increases in existing peak hour noise levels would not trigger additional impacts per the ADOT NAR 15 dBA substantial increase criterion.

#### **I-40 at Clack Canyon Road**

- Existing: 64 dBA to 73 dBA
- Preferred Alternative: 65 dBA to 73 dBA
- No-Build Alternative: 66 dBA to 74 dBA

The Preferred Alternative would result in an approach or exceedance of the Category B NAC at four of the six locations. Therefore, consideration of abatement measures is warranted.

**East of I-40, south of Stockton Hill Road**

- Existing: 60 dBA to 79 dBA
- Preferred Alternative: 62 dBA to 81 dBA
- No-Build Alternative: 62 dBA to 81 dBA

The Preferred Alternative would result in an approach or exceedance of the Category B NAC at 48 residential receivers dispersed in each of the four residential neighborhoods in this part of the study area. An approach or exceedance of the Category C NAC would also occur at 28 locations, including all four assisted living communities and the golf course. Therefore, consideration of abatement measures is warranted.

**West of I-40, south of Stockton Hill Road**

- Existing: 48 dBA to 75 dBA
- Preferred Alternative: 49 dBA to 78 dBA
- No-Build Alternative: 49 dBA to 75 dBA

The Preferred Alternative would result in an approach or exceedance of the Category B NAC at 51 residential receivers dispersed in all the residential neighborhoods in this part of the study area. Therefore, consideration of abatement measures is warranted.

**West of I-40, north of US93/Beale Street**

- Existing: 53 dBA to 75 dBA
- Preferred Alternative: 58 dBA to 73 dBA
- No-Build Alternative: 54 dBA to 77 dBA

The Preferred Alternative would result in an approach or exceedance of the Category B NAC at three residential receivers in the Metcalfe Acres neighborhood and one mobile home in an unnamed residential area. Therefore, consideration of abatement measures is warranted. An approach or exceedance of the Category E NAC at the Tri-State Inn motel is predicted as well; however, mitigation at this location would be impractical due to access issues.

**West of I-40, south of US93/Beale Street**

- Existing: 48 dBA to 68 dBA
- Preferred Alternative: 51 dBA to 70 dBA
- No-Build Alternative: 50 dBA to 66 dBA

The Category B or Category C NAC are not predicted to be approached or exceeded at any evaluated receivers under the Preferred Alternative. No consideration of abatement measures is warranted at this location.

### *Noise Abatement*

ADOT considers abatement measures as mitigation for receivers predicted to be impacted by traffic noise associated with a proposed transportation improvement project. For a mitigation measure such as a noise barrier to be proposed for the project, it must meet criteria for being both feasible and reasonable.

Pursuant to 23 CFR 772.13(d)(1), the initial considerations for each potential abatement measure are both the engineering and acoustic factors that determine whether it is possible to design and construct. Per Chapter 5.1 of ADOT NAR, engineering feasibility factors are:

- Safety, barrier height, curvature, and breaks in barriers
- Topography, drainage, utilities
- Maintenance requirements, access to adjacent properties
- Overall project purpose

Per Chapter 5.2 of ADOT NAR, for a noise abatement measure to be acoustically feasible, ADOT requires achievement of at least a 5-dBA highway traffic noise reduction at 50 percent of impacted receptors. In some instances, the noise level at a location may be affected by an alternate noise source, such as other roadways/streets, railroads, industrial facilities, and airplane flight paths. In such locations, noise abatement for the proposed transportation project may not be acoustically feasible since a substantial overall noise reduction cannot be achieved due to other noise sources. Per Chapter 6 of ADOT NAR, three reasonableness factors, or “tests,” must collectively be achieved for a noise abatement measure to be deemed reasonable:

- Viewpoints or preferences of property owners and residents
- Noise reduction design goal
- Cost-effectiveness

Noise barriers should be designed to reduce projected unmitigated noise levels by at least 7 dB(A) for benefited receptors closest to the transportation facility. To be considered reasonable, at least half of the benefited receptors in the first row would need to achieve this level of noise reduction. The maximum reasonable cost of abatement is \$49,000 per benefited receptor (cost per-benefited-receptor) with barrier costs calculated at \$35 per square foot, or \$85 per square foot if constructed on a structure such as a bridge. The cost of removing any previously built walls, drainage, and other similar construction work is included in the cost assessment. A noise barrier analysis was conducted using the Traffic Noise Model to abate the noise impacts and achieve at least 5-decibel or higher noise reductions. Possible noise barriers (which could include berms) may be located at the freeway shoulder, ROW line, or on the top of slopes (as the case may be), whichever would provide maximum noise reduction and be more desirable for other considerations, such as freeway expansion and maintenance. If more than one barrier location (alignment)



was possible and appeared feasible, all such locations were studied, modeled, and presented in the report with the same level of detail and accuracy.

### Preferred Alternative

A total of nine noise barriers were evaluated to provide mitigation of future (2042) peak hour noise levels associated with the Preferred Alternative (Table 23). Three noise barriers are recommended. The feasibility of construction would be evaluated at a later stage of design.

**Table 23. Noise Barrier Recommendation Summary**

Noise Barrier	Barrier Height (ft)	Barrier Length (ft)	Area of Barrier (ft <sup>2</sup> )	Total Barrier Cost <sup>1</sup>	Number of Benefitted Receptors	Cost-per-Benefitted Receptor	Cost Reasonable (Y/N)
1	10-18	923	12,278	\$497,502 <sup>1</sup>	4	\$111,366	Y, Relocate/ Replace <sup>2</sup>
2 (2 walls)	10/20	1974/ 2022	39478/ 20221	\$2,114,481	9	\$234,942	N <sup>3,4,5</sup>
3	20	3,090	64,208	\$2,272,300	2	\$1,136,150	N <sup>4,5</sup>
4	20	2,662	38,039	\$1,883,537	1	\$1,888,537	N <sup>3,4,5</sup>
5 (2 walls)	10-14/ 12- 12	7,216	94,383	\$3,303,437	201	16,435	Y <sup>6</sup>
6 (2 walls)	12/ 12-14	6,728	89,716	\$3,227,011 <sup>1</sup>	109	\$28,808	Y <sup>6</sup>
7	12-16	1,100	16,779	\$419,986	1	\$419,986	N <sup>5</sup>
8	20	300	6,000	\$209,999	0	N/A	N <sup>3,4,5</sup>
9	14-18	585	9,618	\$336,636	2	\$168,318	N <sup>5</sup>

N/A=Not Applicable

Two barriers, Noise Barrier #5 (Barrier #5) and Noise Barrier #6 (NB#6) were recommended as a mitigation measure to benefit 286 affected receptors. NB#5 was evaluated to mitigate Preferred Alternative peak hour noise levels at impacted Category B, C and E receptors located east of I-40 and south of Stockton Hill Road. Figure 14 shows the location of NB#5, The barrier would be comprised of two noise walls, the first located at the outside shoulder of the I-40 EB approaching Stockton Hill Road from the west and continuing along the I-40 EB off-ramp, and the second located inside the I-40 EB off-ramp at Stockton Hill Road at the I-40 EB shoulder approaching the overpass. Barrier #5 would be between 10 and 14 feet high.

Barrier #6 was evaluated to mitigate impacts to Category B, C and D receptors located west of I-40 and south of Stockton Hill Road. An existing 6-foot noise wall atop a berm (NW#2) located on the north side of I-40 WB provides noise mitigation for residences in the Kingman Country Club Addition. A new noise barrier was evaluated in this location, but it was determined not to be optimal for mitigating future

Preferred Alternative noise impacts; therefore, removal of this wall is recommended, and a new wall is recommended to be located at the I-40 WB shoulder to take advantage of a higher base elevation. Barrier #6 would be comprised of two noise walls, the first located at the outside shoulder of the I-40 EB approaching Stockton Hill Road from the west and continuing along the I-40 WB on-ramp, and the second located inside the I-40 WB on-ramp at Stockton Hill Road at the I-40 WB shoulder west of the overpass. Barrier #6 would be between 12 and 14 feet high.

The existing noise combination wall/berm Barrier #1 located adjacent to the existing I-40 on-ramp would be removed due to the construction of the new interchange. NW#1 was evaluated to mitigate Preferred Alternative peak hour noise levels at impacted homes in the Monte Vista #1 neighborhood where impacts are predicted due to the future increase in traffic and removal of NW#1. Figure 14 shows the location of Barrier #1, which would be located at the outside shoulder of the I-40 EB on-ramp from Beale Street. The barrier height would be between 10 and 18 feet high.

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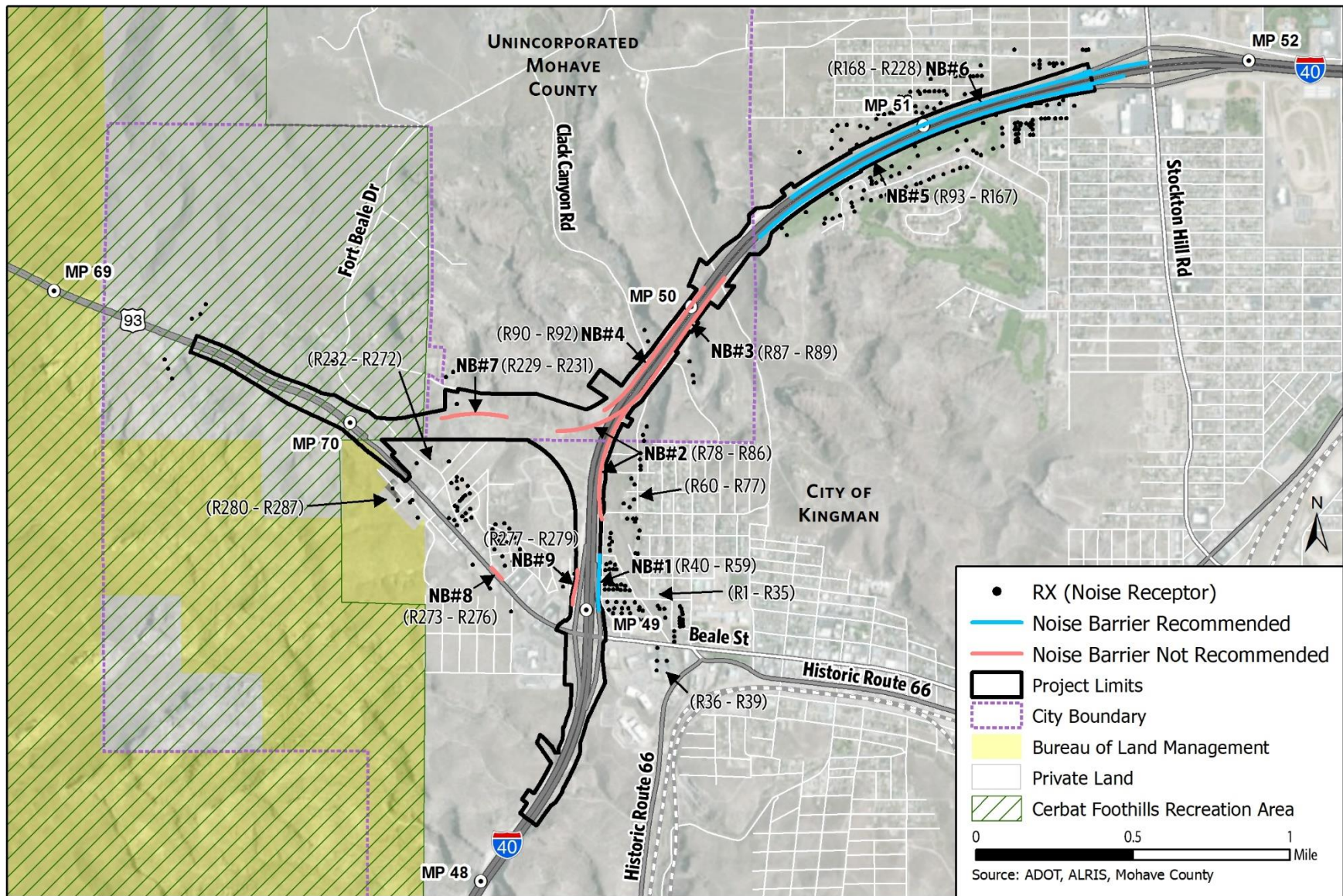


Figure 14. Noise Wall Locations

### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, the operational improvements would not be constructed. FHWA regulations and ADOT requirements only provide for noise mitigation in “Type I” construction projects – those that add a transportation facility on a new alignment, increase the capacity of an existing transportation facility, or result in substantial vertical or horizontal alterations. Consequently, noise mitigation measures would not be provided for any receivers under the No-Build Alternative.

### *Construction Noise and Vibration*

During construction, noise and vibration would be generated intermittently due to operation of heavy machinery, earthmoving activities, blasting, demolition, and typical construction practices among other activities. The intensity of the noise or vibration would depend on the type of activity and the distance from the source, which would decrease in intensity with distance. Depending on location, noise or vibration impacts during construction would result in minor negative impact to the receivers near the project area. This impact would be short-term and cease with the conclusion of construction.

### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor should follow ADOT’s 2017 Noise Abatement Requirements, ADOT’s Standard Specifications for Road and Bridge Construction, and local jurisdiction noise ordinances.

#### ADOT Design Responsibility

- Where feasible, noise barriers required as mitigation measures would be constructed as early as possible in the construction phasing to shield adjacent properties from construction-related noise.

### *Conclusion*

The Preferred Alternative would result in both long-term (operational) and short-term (construction-related) noise impacts. The noise and vibration impacts would be stronger the closer the receiver is to the source. Long-term impacts would result in an increase in noise levels anywhere from no impact west of I-40 and south of US 93 and Beale Street, to a 5 dB(A) increase west of I-40 and north of US 93/Beale Street. Noise impacts would be minor to moderate in intensity depending on the distance from the source. A feasibility analysis of noise abatement was conducted. Three noise barriers are recommended.

Short-term noise impacts would result from the operation of heavy machinery, earthmoving activities, blasting, demolition, and typical construction practices among other activities. Short-term impacts would be minor to moderate in intensity depending on the distance from the source. Construction impacts would be temporary and would cease when the project is complete.

## J. Utilities

### Existing Conditions

This section describes the buried or overhead infrastructure required to provide public services such as water, electricity, natural gas, telephone service, and other essentials to customers. Several utility stakeholders maintain infrastructure within or adjacent to the project area. These utilities are summarized in Table 24.

**Table 24. Summary of Utilities within the Project Area**

Utility Type	Owner	Description
Electrical Power	Unisource Electric (Acquired: Citizens Electric) ADOT Arizona Electric Power Co-Op	Overhead and underground power and electric transmission lines Traffic Power Power Substation
Communications (Fiber Optic, Cable, Telephone)	AT&T Century Link Frontier Communications of the White Mountains (Acquired: Citizens Communications) Suddenlink Communications (Acquired: Kingman Cable Television and NPG Cable of Kingman)	Fiber optic Overhead telephone Overhead & underground telephone & Fiber Optic  Overhead and underground fiber optic & cable TV
Sewer, Water	City of Kingman Water City of Kingman Sewer ADOT Valley Pioneers Water Company Private	Water, meters, fire hydrants, service lines Sewer, manholes, service lines Culvert, storm drain, Water (outside of project area) Private underground water and sewer
Natural Gas, Coal Slurry	Black Mesa Pipeline Transwestern Pipeline (Acquired: Southern Union Gas) Unisource Energy Services (Acquired: Citizens Gas)	Inactive coal slurry pipeline Underground gas  Underground gas
License Plate Reader	ADOT  Drug Enforcement Administration (DEA)	Variable Message Sign, Freeway Management System License Plate Reader and Speed Reader

### Environmental Consequences – Preferred Alternative

The Preferred Alternative has potential horizontal and vertical conflicts with existing utilities. It is not anticipated that these facilities would require relocation, but further facility investigation would be performed to determine if relocations are required. Potential conflicts are summarized in Table 25.

**Table 25. Summary of Potential Utility Conflicts within the Project Area**

Utility Owner	Location/Description
AT&T	<ul style="list-style-type: none"> <li>• I-40 MP 50.15, underground (UG) fiber optic cable</li> </ul>
City of Kingman	<ul style="list-style-type: none"> <li>• I-40 MP 48.87 to 48.88, UG sewer line</li> <li>• I-40 MP 48.88, UG water line</li> <li>• I-40 MP 49.27, UG water line</li> <li>• I-40 MP 49.31, UG steel sleeve for water line</li> <li>• I-40 MP 49.37, UG steel sleeve for water line</li> <li>• I-40 MP 49.71 to 49.83, UG water line</li> <li>• I-40 MP 49.77, UG water line</li> <li>• I-40 MP 50.14, UG water line</li> <li>• I-40 MP 50.60, UG steel water</li> <li>• I-40 MP 51.44, UG water line</li> <li>• I-40 MP 51.45, UG sewer line</li> </ul>
Frontier Communications of the White Mountains	<ul style="list-style-type: none"> <li>• I-40 MP 48.84, UG telephone cable</li> <li>• I-40 MP 48.99, Overhead (OH) telephone line</li> <li>• I-40 MP 49.81, UG telephone cable</li> <li>• I-40 MP 50.15, UG fiber optic cable</li> </ul>
Suddenlink Communications	<ul style="list-style-type: none"> <li>• I-40 MP 48.99, OH television cable</li> </ul>
UniSource Energy Services	<ul style="list-style-type: none"> <li>• I-40 MP 48.84, UG power and OH 69 kV electric transmission line</li> <li>• I-40 MP 48.88, UG gas line</li> <li>• I-40 MP 48.99, OH 12 kV power line</li> <li>• I-40 MP 49.10 to 49.23, UG gas line</li> <li>• I-40 MP 49.87, OH power line</li> <li>• I-40 MP 50.15, OH power line</li> <li>• I-40 MP 51.33, OH power line</li> <li>• US 93 MP 69.75, OH 69 kV electric transmission line</li> </ul>

Utility facilities along I-40, US 93, and directional ramps would be affected by the project. Table 26 summarizes the facilities that would be impacted throughout the project limits. Pothole information obtained during final design would be required to confirm conflicts.

**Table 26. Summary of Utility Impacts within the Project Area**

Utility Owner	Location/Description
City of Kingman	<ul style="list-style-type: none"> <li>• I-40 MP 49.37, existing UG 2" water line conflicts with proposed pipe culvert</li> <li>• I-40 MP 49.37, existing UG sewer line conflicts with proposed pipe culvert</li> <li>• I-40 MP 49.79, existing UG water line conflicts with proposed pipe culvert</li> <li>• Existing water line conflicts with proposed US 93</li> </ul>
DEA	<ul style="list-style-type: none"> <li>• US 93 MP 70.12, existing license plate reader and speed check conflicts with road construction</li> </ul>
Frontier Communications of the White Mountains	<ul style="list-style-type: none"> <li>• I-40 MP 49.03, existing UG telephone cable conflicts with proposed retaining wall on Beale Ramp</li> <li>• I-40 MP 49.80, existing UG telephone cable conflict with proposed retaining wall</li> <li>• Existing OH telephone cable and service lines conflict with proposed US 93 construction</li> <li>• Existing OH telephone and service lines conflict with construction of proposed US 93 eastbound to I-40 eastbound directional ramp</li> </ul>
UniSource Energy Services	<ul style="list-style-type: none"> <li>• Existing OH 12kV power line conflicts with proposed US 93 construction</li> <li>• US 93 MP 70.11 to 70.13, existing OH power and service lines conflict with proposed road construction</li> <li>• Existing OH 12kV power and service lines conflict with proposed US 93 to I-40 eastbound directional ramp construction</li> </ul>

*Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, no construction would take place. No impact to utilities would occur.

*Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor would follow ADOT’s Standard Specifications for Road and Bridge Construction and ADOT’s Guideline for Accommodating Utilities on Highway Rights-of-Way to mitigate utility conflicts.

*Conclusion*

The Preferred Alternative would have utility impacts throughout the corridor, including relocations to City of Kingman, DEA, Frontier Communications of the White Mountains, and UniSource Energy Services facilities. ADOT would coordinate with the appropriate utility companies during design and construction regarding impacts, adjustments, and any service disruptions. The ADOT Utility Section would further investigate and coordinate with appropriate utility companies during design and construction regarding impacts, adjustments, and any service disruptions.

## K. Visual Resources

Potential impacts to visual resources include an assessment of general changes to the character of the landscape and changes from specific viewing locations, known as KOPs. KOPs account for views of the landscape as observed by motorists travelling along the roadway and views of the roadway from areas adjacent to the roadway.

The study area includes a small portion of land managed by the BLM (south side of US 93 from approximately MP 69.84 to MP 69.95). BLM manages public lands in accordance with approved resource management plans (RMPs), which define how public lands will be used and how resources will be managed. BLM's Visual Resource Management (VRM) system establishes a framework for managing visual resources on BLM-administered lands to reduce development impacts on visual resources and maintain the scenic value of the land. BLM manages visual resources through the designation of VRM class objectives, which describe the desired future condition of the landscape and establish thresholds of allowable visual change to the character of the landscape. Table 27 summarizes the objectives and the allowed levels of change for each of the four VRM classes.

### *Existing Conditions*

The project area is located at the eastern edge of the Mojave Basin and Range Ecoregion. To the north of the project are the Cerbat Mountains, to the south are the Hualapai Mountains, to the west are the Black Mountains, and to the east are the Peacock Mountains. The landscape characteristics associated with the project area are bold and prominent and are typically undulating with rough, angular, vertical, and irregular landforms with lightly colored soils. Numerous drainages cross the project area, including Coyote Holes Spring, Gross Spring Wash, Grapevine Spring, Beale Spring, Atlantic Spring, Cook Canyon Wash, and Box Canyon Wash. Vegetation is dispersed with low, rounded forms consisting of shrubs and fine grasses with subtle colors including light yellow green, dark green, grays, and straw that stipple the landscape. The project area includes residential, commercial, and industrial land uses and numerous dirt roads and trails. All BLM lands within and adjacent to the project are designated as VRM Class II.

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**Table 27. VRM Class Objectives and Allowed Level of Change**

VRM Class	Objective	Allowed Level of Change
I	To preserve the existing character of the landscape	This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
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.
III	To partially retain the existing character of the landscape.	The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	To provide for management activities which require major modification of the existing character of the landscape.	The level of change to the characteristic landscape can be high. Management activities may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

*Environmental Consequences – Preferred Alternative*

Visual impacts are defined as the change in aesthetic value resulting from modification of the landscape due to the Preferred Alternative. Potential changes in visual character are based on the perceived magnitude of change between existing conditions and post-project conditions. These changes are categorized as very low, low, moderate, high, and very high and are defined in Table 28.

**Table 28. Magnitude of Change**

Rating	Definition
Very low	Landscape character remains intact with no apparent change to the existing visual elements (line, form, color, and texture) or pattern character (dominance, scale, diversity, and continuity) in the landscape. Potential changes in landscape character would not be apparent and would not attract attention.
Low	Magnitude of change from the existing landscape character is subtle and the changes in visual pattern elements or pattern character would be seen but would not attract attention.
Moderate	Magnitude of change from the existing landscape character is noticeable and the changes in visual pattern elements or pattern character attract attention.
High	Magnitude of change from the existing landscape character is substantial. The changes in visual pattern elements or pattern character begin to dominate the landscape and become the focus of viewer attention.
Very High	Magnitude of change from the existing landscape character is severe. The changes in visual pattern elements or pattern character dominate the landscape and capture the viewer’s attention.

Because the landscape in the project vicinity is largely unchanged since the previous environmental analysis conducted in 2015, the visual impacts of the Preferred Alternative were assessed based on the visual contrast ratings prepared for the 2015 Working Draft EA (ADOT 2015a) The Preferred Alternative was evaluated from six KOPs (Figure 15). At BLM’s direction, Visual Contrast Rating Worksheets were prepared only for KOPs 4 and 6 where the project may be visible from BLM land.

The change in visual character was based on comparing post-project conditions to the existing visual elements and patterns of the landscape within the project area. The assessment of the VRM class objectives and allowed level of change therefore considered that the landscape currently includes man-made modifications.

Under the Preferred Alternative, the largest cut would be approximately 105 feet in height and occur in two locations, just to the west of I-40 where the new ramps would be located and along the south side of US 93 at the western end of the project. From WB I-40 and NB/SB US 93, highway users would have a parallel view of the large cuts. There would be a very low magnitude of change from three KOPs (which includes KOPs 4 and 6), a low magnitude from one KOP, and a moderate magnitude of change from two KOPs. Mitigation measures to minimize visual impacts were identified in the Visual Contrast Rating Worksheets. During final design, coordination and concurrence with the findings of the visual analysis from the BLM and the verification of necessary mitigation measures would be required. The build alternative is anticipated to have a long-term moderate impact on the visual characteristics of the overall project area. Visual impacts specific to BLM land are expected to be localized and minor.

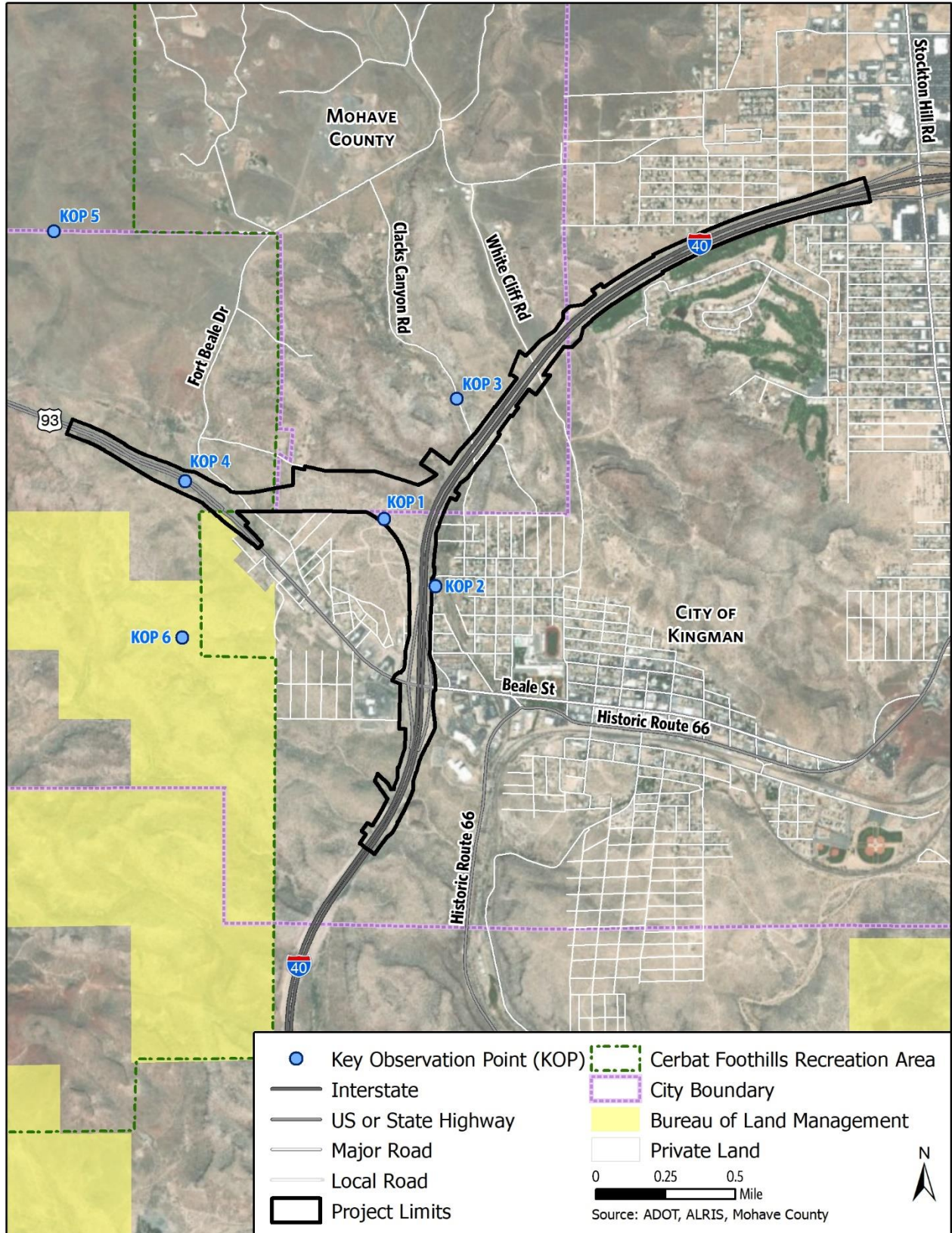


Figure 15. Key Observation Points

### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, visual resources would not be impacted because the visual character of the project area would not change.

### *Environmental Commitments and/or Mitigation Measures*

The following preliminary measures to reduce the impact to the visual setting were identified while conducting the visual analysis. During final design, coordination between ADOT and the BLM would determine which actions to implement and develop mutually agreeable mitigation measures to address these actions.

#### Design Responsibility

- To blend with natural rock features, newly exposed rock faces would incorporate characteristics of the adjacent natural rock to include scale, shape, slope, and fracturing to the extent that is practical and feasible, as identified through geotechnical testing and constructability reviews. Finished surfaces of rocks would be treated with simulated desert varnish to blend with the adjacent landscape.
- Existing rock outcroppings would be left in place if stable and if they blend into the surrounding terrain and do not create a hazard to the traveling public, interfere with construction, or look out of place in the natural landscape.
- All permanent erosion and sediment control Best Management Practices (rip-rap, rock mulch) that are visible from the roadway would be attained from a rock source that blends with the natural color of the adjacent undisturbed natural landscape to the maximum extent practical.
- Proposed structures would be designed to simulate the form, color, line, and texture of the surrounding landscape. Structures would be painted or stained and weathered steel would be considered for signposts and fence posts to blend with the color of the adjacent undisturbed landscape in areas visible from the roadway.

#### District Responsibility

- ADOT will coordinate with the Bureau of Land Management throughout the design and construction phases of the project to determine any measures needed to address visual impacts resulting from the project on Bureau of Land Management land.

### *Conclusion*

The Preferred Alternative would result in newly constructed features within the project area. The impact to the visual character within the project area would primarily be due to the addition of roadway features and cut and fill slopes where new alignments cross areas that were not currently developed as roadways. Overall, the Preferred Alternative would have a moderate impact on visual resources due to the large cut and fill slopes. Visual impacts specific to BLM land are expected to be localized and minor. No visual impacts would occur under the No-Build Alternative.

## L. Drainage and Floodplain Considerations

This section identifies and assesses applicable drainage patterns, such as surface water and groundwater, and floodplains. Surface water includes water present above the soil surface such as rivers, streams, lakes, pools, and stormwater runoff. Groundwater is water that flows below the soil surface that can be collected by underground wells or other facilities constructed for collecting water or for monitoring.

Executive Order 11988, Floodplain Management, requires that impacts on floodplains be evaluated for all federal actions, and directs agencies to reduce impacts on floodplains, minimize flood risks on human safety and well-being, and restore and preserve floodplain values. Floodplains are delineated and managed by the Federal Emergency Management Agency (FEMA). A floodplain is generally level land subject to periodic flooding from an adjacent body of water.

A 100-year flood is a storm having a 1 percent chance of being exceeded in magnitude in any given year. The 100-year floodplain includes areas adjoining a water body that are inundated by water during a 100-year flood. The floodway is the area within the floodplain where the water is likely to be the deepest and fastest; this area should be kept free of obstructions to allow 100-year floodwaters to move downstream without increasing the water surface elevation more than 1 foot. FEMA Flood Insurance Rate Maps depict the delineated 100-year floodplain. The 100-year floodplain is divided into flood zones, including:

- Zone A: areas subject to inundation by 100-year floods that have been identified through qualitative methodologies; no base flood elevations have been determined
- Zone AE: areas subject to inundation by 100-year floods that have been identified through quantitative methodologies; base flood elevations have been determined
- Zone AH: areas subject to inundation by 100-year shallow floods where ponding occurs, and flood depths are between 1 and 3 feet deep; base flood elevations have been determined
- Zone AO: areas subject to inundation by 100-year shallow floods typified by sheet flow on sloping terrain with flood depths between 1 and 3 feet; base flood elevations have been determined

### *Existing Conditions*

An initial drainage report was prepared to characterize the existing and future drainage conditions in the project vicinity and evaluate the drainage impact of the proposed West Kingman TI. Existing drainage features within and adjacent to the project area include Clack Canyon Wash, its tributaries, and several unnamed ephemeral washes. These surface waters flow beneath I-40 and US 93 through existing bridges and culverts.

A review of FEMA Flood Insurance Rate Maps (04015C4554H, 04015C4558H, and 04015C4562H effective February 18, 2015, Figure 16) indicates floodplains are delineated within the study area. The Clack Canyon floodplain at I-40 is classified as Zone A, which is defined as the 100-year floodplain, determined with approximate methods. A few hundred feet south of the I-40 Clack Canyon bridge, Zone AE floodplain is delineated as a 100-year floodplain with established base flood elevation. US 93 includes a Zone AO delineation defined as a 100-year floodplain with shallow flooding.

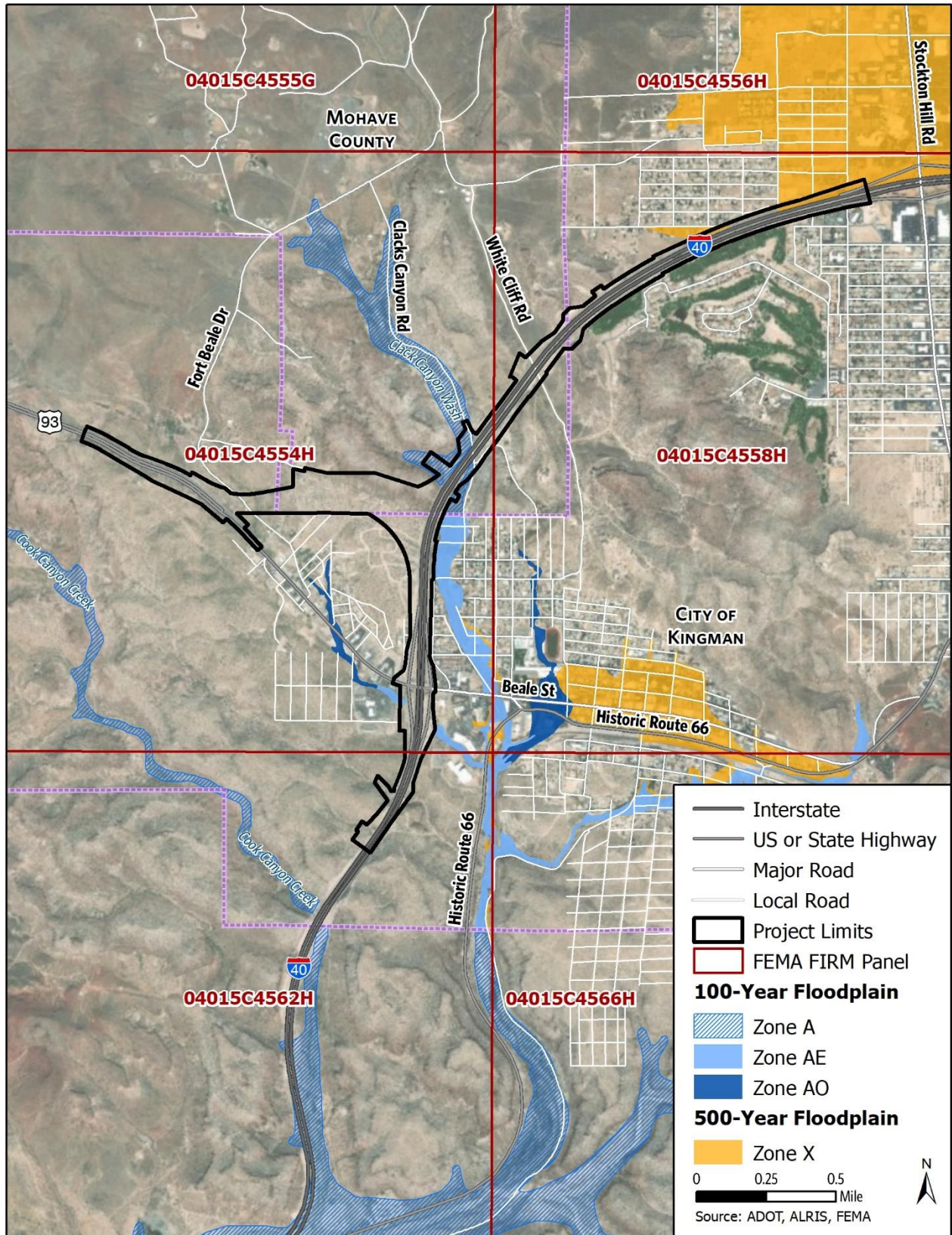


Figure 16. Floodplains

### *Environmental Consequences – Preferred Alternative*

Construction of the Preferred Alternative would require 18 culvert crossings to accommodate the new TI, 10 of which are extensions of existing culverts and eight of which are new culverts. In addition, two new bridges would be constructed over Clack Canyon Wash to accommodate the new ramps. In total, approximately 1.1 acre of disturbance to the 100-year floodplain would potentially occur under the Preferred Alternative, resulting in a permanent, minor, negative impact to the floodplain. The initial drainage report concluded that the new I-40 bridges over Clack Canyon would not cause adjacent properties outside of the ROW to flood or otherwise adversely affect the drainage capacity of adjacent properties up to a 100-year storm event (ADOT 2020a). Therefore, no changes to the FEMA Flood Insurance Rate Maps would be anticipated as a result of the Preferred Alternative.

An onsite drainage system designed to collect and convey stormwater runoff within the ADOT ROW. This system would consist of catch basins and median drains connected to storm drains that convey the flow either to an existing storm drain trunk line or to a retention/detention basin.

The records review conducted as part of the Phase I environmental site assessment identified numerous well registrations with the Arizona Department of Water Resources (ADWR), indicating the presence of groundwater wells within and adjacent to the project area. If the groundwater wells cannot be avoided through changes in project design, proper abandonment or regulatory closure would be required.

### *Environmental Consequences – No-Build Alternative*

No impacts to surface water, groundwater, or floodplains would occur under the No-Build Alternative.

### *Environmental Commitments and/or Mitigation Measures*

#### ADOT Design Responsibility

- Floodplain impacts would be coordinated with the Mohave County Flood Control District manager at 928.757-0925, who would be provided an opportunity to review and comment on the design plans.

#### ADOT District Responsibility

- The Mohave County floodplain manager at 928.757-0925 would be provided an opportunity to review and comment on the design plans.

### *Conclusion*

The Preferred Alternative would include the construction of eight new culverts and extension of 10 existing culverts and would include the construction of two new bridges over Clack Canyon. The improvements would encroach on approximately 1.1 acre of floodplain. The new I-40 bridges over Clack Canyon would not cause adjacent properties outside of the ROW to flood or otherwise adversely affect the drainage capacity of adjacent properties up to a 100-year storm event. Existing drainage patterns would be maintained and adequate detention/retention or conveyance of storm water to a storm drain would be constructed as part of the Preferred Alternative. No floodplain or drainage changes would occur under the No-Build Alternative.

## M. Sections 404 and 401 of the Clean Water Act and National Pollutant Discharge Elimination System

The Clean Water Act (CWA) is the primary federal statute governing discharge of pollutants into jurisdictional waters of the United States (Waters), which, in Arizona, include perennial and ephemeral watercourses and their tributaries and adjacent wetlands. The principal goal of the CWA is to establish water quality standards to restore and maintain the chemical, physical, and biological integrity of the nation's Waters by preventing point (concentrated output) and nonpoint (widely scattered output) pollution sources.

Section 404 of the CWA regulates the discharge of earthen fill, concrete, and other construction materials into Waters, and authorizes the Corps to issue permits regulating the discharge of dredge or fill material into Waters. The limits of Waters are defined through a preliminary or approved jurisdictional delineation (JD) accepted by the Corps. A preliminary JD assumes all drainages in a given area are subject to the jurisdiction of the Corps. An approved JD requires that all ephemeral drainages display a significant nexus to the downstream traditional navigable water, which for this project is the Colorado River.

Regional General Permit Number (RGP) 96 applies Waters that occur within the ADOT right-of-way or easement throughout non-tribal land in Arizona. The RGP 96 allows for up to 1 acre of permanent impact for each Water for routine linear transportation projects. Other common types of Section 404 permits for transportation projects are: (1) Nationwide Permit 14 (Linear Transportation Projects), which authorizes projects with less than 0.50 acre of permanent loss of Waters with no impacts to special aquatic areas such as wetlands, and (2) individual permits, which are required for projects that affect more than 0.50 acre of Waters or cause impacts to jurisdictional wetlands. An individual permit requires mitigation to minimize or offset the impacts to Waters with no net loss of the functions and values of the water resource.

Section 401 of the CWA requires any applicant requesting a federal permit or license for activities that may result in discharge into Waters to first obtain a CWA Section 401 certification from the state in which the discharge originates. The CWA Section 401 certification verifies that the prospective permits comply with the state's applicable effluent limitations and water quality standards. Federal permits or licenses are not issued until the CWA Section 401 certification is obtained. The ADEQ is responsible for the CWA Section 401 certification. If a project meets the terms and conditions of a Nationwide Permit and the criteria for conditional CWA Section 401 certification, notification to ADEQ is not required. However, if a project does not meet the criteria for conditional certification, such as projects occurring within 0.25 mile of unique or impaired waters, an individual CWA Section 401 certification application to ADEQ is required.

Section 402 of the CWA formed the National Pollutant Discharge Elimination System (NPDES), which regulates pollutant discharges, including stormwater, into Waters. An NPDES permit sets specific discharge limits for point-source pollutants into Waters and outlines special conditions and requirements for a particular project to reduce impacts to water quality. In 2002, EPA authorized ADEQ to administer the NPDES program at the state level, called the Arizona Pollutant Discharge Elimination System (AZPDES).



AZPDES permits require that the project be designed to protect Waters and during construction that the contractor be in compliance with all plans and requirements of the permit. AZPDES permits require that the project be designed to protect Waters, erosion control best management practices (BMPs) be implemented, and a Stormwater Pollution Prevention Plan (SWPPP) be prepared for construction activities with one acre or more of ground disturbance. Municipal Separate Storm Sewer Systems (MS4s) convey stormwater runoff through drains, streets, and open channels, directly discharging untreated stormwater into retention basins, washes, rivers, or lakes. Municipalities operating MS4s within local urbanized areas designated by the EPA or the ADEQ are required to obtain discharge permits under NPDES or AZPDES authority. ADOT and Mohave County are MS4s and implement permits in the study area.

### *Existing Conditions*

The Arizona List of Unique Waters (Arizona Administrative Code R-18-11-112[E]) and the Arizona 2018 Section 303(d) List of Impaired and Not Attaining Waters along with the ADEQ eMaps site (<http://gisweb.azdeq.gov/arcgis/emaps/>) were reviewed to determine whether any unique or impaired are present. No Unique, Outstanding, Impaired, or Not Attaining Waters are within the project vicinity. Holy Moses Wash, which parallels US 93 before crossing I-40 south of the Beale Street TI is a water designated as an ephemeral water that supports aquatic and wildlife and where partial-body contact is acceptable but not to the point of completely submerging. Water from this wash should not be consumed.

The Corps issued a preliminary JD for the study area on February 3, 2020 that identified 31 jurisdictional Waters within the study area. The following regulatory guidance, reviews, desktop studies, and field studies were completed to identify Waters within the study area:

- Waters field delineation completed in 2019
- Review of United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Mapping (USFWS 2019)
- Review of U.S. Geologic Survey Kingman, AZ (1969) 7.5' topographic quadrangle
- Review of study area aerial photographs
- Review of FEMA Flood Insurance Rate Maps

The Waters present within the study area include 6.981 acres of 30 unnamed, ephemeral channels. Although the 2019 NWI depicts Riverine Wetlands within the survey area, no wetlands are present.

### *Environmental Consequences – Preferred Alternative*

There is limited information and design currently available with which to determine impacts on Waters as a result of this project. Construction of the Preferred Alternative would result in temporary and permanent impacts to Waters within the study area. Permanent impacts would occur in the locations where the Preferred Alternative would be constructed within Waters. Actions resulting in permanent impacts include the construction of bridge piers and culverts. Temporary impacts would occur to Waters for construction staging areas or access, vegetation removal, and other related construction activities that would not permanently remove Waters.

To comply with Section 404 of the CWA, an appropriate permit would be obtained prior to any construction within a wash. During final design, the exact impacts to each wash would be determined and the appropriate CWA Section 404 permit obtained. Based upon the preliminary design, use of RGP 96 with full pre-construction notification is anticipated because the largest anticipated impact is less than one acre.

Construction activities such as clearing, grading, trenching, and excavating would disturb soils and sediment. If not managed properly, disturbed soils and sediments could be washed into nearby drainages and impact water quality. To prevent construction-related pollutant discharges into Waters, ADOT would prepare and implement erosion and sediment control plans, details, and specifications in accordance with the requirements of the AZPDES Construction General Permit.

#### *Environmental Consequences – No-Build Alternative*

No construction would occur with the No-Build Alternative so Waters within the study area would be unaffected. No long-term or short-term impacts would occur. No construction would occur so the requirements of the AZPDES Construction General Permit would not apply.

#### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor should follow ADOT's Clean Water Act Section 404/401 Guidance Manual, ADOT's Erosion and Pollution Control Manual, and ADOT's Standard Specifications for Road and Bridge Construction.

#### Design Responsibility

- The Arizona Department of Transportation would prepare and submit an application to the Corps for a CWA Section 404 permit for the project.
- No work would occur within jurisdictional Waters of the United States until the appropriate Clean Water Act Section 404 permit and Section 401 Water Quality Certification are obtained.

#### ADOT District Responsibility

- No work would occur within jurisdictional Waters of the United States until the appropriate Clean Water Act Section 404 permit and Section 401 Water Quality Certification are obtained.
- The Arizona Department of Transportation would prepare and submit an application to the Corps for a CWA Section 404 permit for the project.

#### Contractor Responsibilities

- No work would occur within jurisdictional Waters of the United States until the appropriate CWA Section 404 permit and CWA Section 401 Water Quality Certification are obtained.
- The contractor shall comply with all terms and conditions of the applicable CWA Section 404 Permit and CWA Section 401 Water Quality certification, certified by the ADEQ.

### *Conclusion*

Construction of the Preferred Alternative would permanently and temporarily impact Waters due to construction of the roadway alignment, resulting in a moderate adverse impact. Based upon the preliminary design used for this impact analysis, it is expected that a CWA Section 404 Individual Permit and CWA Section 401 Individual Certification would be required but would be determined during final design. Construction of the project would be subject to the requirements of the AZPDES Construction General Permit. After construction, the project would be managed under ADOT's MS4 permit to prevent pollutant discharges in highway runoff. No impact to Waters would occur as a result of the No-Build Alternative.

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## N. Biological Resources

A biological evaluation (BE) was prepared in 2013 (Logan Simpson Design Inc. 2013) for the original study area and documented in the 2015 Draft DCR and Working Draft EA. As part of the environmental review process, agency meetings were held for the original project and the updated project scope to solicit comments. AGFD, USFWS, BLM, and others attended the meetings and their input, including biological concerns, have been integrated into the project development. As a result of project design changes a new BE was prepared in 2020, which incorporates the 2013 BE by reference, to analyze the current project limits and address any changes in species listings. The new BE was approved by ADOT on January 14, 2020.

### *Existing Conditions*

The project is located at the north end of the Hualapai Mountains with elevations ranging from 3,300 to 3,700 feet above sea level. Surrounding topography is mountainous with short cliffs, approximately 40 to 60 feet tall, present within the project limits. Geologic formations in the project vicinity include surficial deposits of alluvium, granitoid rocks, and volcanic rocks. Soils are of the Lithic Torriorthents-Rock Outcrop-Lithic Haplargids association, which consists of rock outcrops and well-drained, very shallow soils on hills and mesa escarpments (Hendricks 1985).

The project area is located in a transition zone with vegetation characteristic of the Semidesert Grassland Biotic Community (Brown 1994), which is found east of the project area, and the Mohave Desertscrub Biotic Community (Turner 1994), which is found west of the project area. Dominant vegetation in the project area includes saltbush (*Atriplex spp.*), creosote bush (*Larrea tridentata*), and various grasses and forbs. Other vegetation observed in the project area includes prickly pear cacti (*Opuntia sp.*), globemallow (*Sphaeralcea spp.*), catclaw acacia (*Acacia greggii*), buckwheats (*Eriogonum spp.*), desert broom (*Baccharis sarothroides*), and cheat grass (*Bromus tectorum*).

As noted in sections K. and L. above, several ephemeral drainages but no permanent water source is present within the project limits. Vegetation along these drainages is similar to the adjacent upland areas. No riparian or wetland vegetation is present within the project limits. BLM and AGFD lands and two recreation areas (Cerbat Foothills and Beale Springs) include undeveloped desert habitat within and adjacent to the construction footprint (see Section B.) that provides habitat and movement corridors for wildlife.

### Threatened and Endangered Species

The Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.) is implemented by the USFWS and National Marine Fisheries Service through the identification and protection of federally listed threatened and endangered species and their habitats. Section 7 of the ESA requires federal agencies to ensure that their actions do not jeopardize the existence of any federally listed threatened or endangered species. USFWS utilizes an online consultation process, the Information for Planning and Consultation system (IPaC), which generates a project-specific, official species list that identifies species and their habitat that may occur within or near the project construction footprint. The project specific IPaC was accessed on July 31, 2019 and updated on January 2, 2020 (Consultation code: 02EAAZ00-2019-SLI-0854). The ESA

species list from the IPaC report was reviewed by a qualified biologist, and the species are summarized in Table 29. No critical habitat was identified within the project area.

**BLM Sensitive Species**

Sensitive species are those plant, animal, and fish species identified by BLM that require special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA (BLM 2008). As a component of this management of sensitive species and their habitats, the BLM Sensitive Species List in Arizona (2017) was evaluated for this project. Table 30 presents the BLM sensitive species that were identified in the AGFD species list with documented occurrences within three miles of the project vicinity and were evaluated for potential impacts.

**Table 29. Project USFWS Species List**

Species	Status	Habitat Requirements	Exclusion Justification
<b>Birds</b>			
California condor ( <i>Gymnogyps californianus</i> )	ESA LE XN	High desert canyon lands and plateau for nesting; and open grasslands and savannahs for foraging at elevations of 2,000 to 6,500 feet above mean sea level. The 10j experimental population area includes the area bounded by I-40 to the south, and US 93 to the west.	There is no suitable canyon or plateau for nesting habitat within the project area. The construction footprint abuts the southern boundary of the designated 10j experimental population area; however, no condors have been documented in the area.
California least tern ( <i>Sterna antillarum browni</i> )	ESA LE	Open, bare, or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems below 2,000 feet above mean sea level.	There is no suitable habitat and no suitable water sources within the project area.
yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	ESA LT	Uses large contiguous patches of multilayered riparian habitat, such as cottonwood-willow gallery forests along rivers and streams below 6,600 feet above mean seal level.	There is no suitable riparian habitat within the project area.
<b>Reptiles</b>			
northern Mexican gartersnake ( <i>Thamnophis eques megalops</i> )	ESA LT	Cienegas, stock tanks, and rivers that are densely vegetated such as lowland river riparian woodlands, and upland stream gallery forests most frequently between 3,000 to 5,000 feet above mean sea level.	There is no suitable habitat and no suitable water sources, riparian woodlands, or forests within the project area.

Source: USFWS IPaC, July 31, 2019; updated January 2, 2020.

Status definitions: ESA = Endangered Species Act; LE = Listed Endangered; LT = Listed Threatened; XN = Experimental Non-essential Population.

### State Sensitive Species

Distribution and abundance of wildlife and plants throughout the state are managed by AGFD to protect, restore, preserve, and maintain these species. The AGFD Heritage Data Management System (HDMS) and HabiMap, a network of natural heritage programs and conservation data resources that identify plant and animal species of concern in Arizona and provides information and mapping of their distribution and status was evaluated through an on-line environmental review tool. The AGFD on-line environmental review tool was originally accessed on June 26, 2012 and again on July 13, 2019 and updated January 2, 2020 (Receipt Number: HGIS-09536; AGFD 2020) to determine whether special status species have been reported to occur in the area surrounding the updated project location and for any recent changes in the status of special status species. Table 30 presents the State sensitive species evaluated for potential impacts.

### Migratory Birds

The Migratory Bird Treaty Act (MBTA; 16 USC 703-712), establishes protections for migratory birds and their parts (e.g., eggs, nests, and feathers) from taking, hunting, capture, transport, sale, or purchase. Most species of birds are classified as migratory under the MBTA, except for upland game and introduced birds. No active nests were noted in the 2012 surveys; however, an additional 40 acres of previously undisturbed land would be impacted by the revised project limits. As documented in the 2020 BE, suitable habitat for migratory bird species could be affected.

### Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act of 1940 (16 USC 668a-d) protects eagles from activities that could cause detrimental effects including being disturbed, pursued, captured, or collected. The project area occurs within golden eagle foraging habitat, and eagles have been documented within three miles of the West Kingman TI (AGFD 2020). Golden eagles are known to occur in the expanded vicinity; however, they typically occupy habitat away from human disturbance.

### Native Plants

The Arizona Native Plant Law (A.R.S. §§ 3-341 et seq. and 3-3101 et seq), administered by the Arizona Department of Agriculture, protects rare plant species on state and private lands and discourages protected species from overharvest. Protected plants fall into four categories: highly safeguarded, salvage restricted, salvage assessed, and harvest restricted. The construction footprint and surrounding ROW was previously surveyed for the presence of protected native plants on June 21, 2012 and the following protected plants were identified during the survey: prickly pear cactus (*Opuntia* spp.) and yucca (*Yucca* spp.). As documented in the 2020 BE, these plants are presumed to still occur within the revised project limits and a permit for removal of these salvage restricted species may be needed.

**Table 30. BLM and State Sensitive Species within 3 Miles of the Project Limits**

Common Name	Scientific Name	Status *	Occupied Habitat Present?	Suitable Habitat Present?	Suitable Habitat Affected?	Species Potentially Affected?
<b>Mammals</b>						
Allen’s big-eared bat	<i>Idionycteris phyllotis</i>	BLM-S	No	Yes, bats are found in ponderosa pine, piñon-juniper, Mexican woodland and riparian areas of sycamores, cottonwoods and willows. They have also been found in white fir and in Mojave desert scrub. These bats typically occur along streams or over ponds where the bats may be seeking insects, water or both. They roost in caves and abandoned mineshafts.	Yes	Yes
greater western bonneted bat	<i>Eumops perotis californicus</i>	BLM-S SGCN 1B	No	Yes, bats occur from lower and upper Sonoran desert scrub near cliffs, preferring rugged rocky canyons with abundant crevices.	Yes	Yes
<b>Birds</b>						
golden eagle	<i>Aquila chrysaetos</i>	BGA SGCN 1B	No	Foraging habitat	Yes	Yes
western burrowing owl	<i>Athene cunicularia hypugaea</i>	BLM-S	No	No	No	No
<b>Reptiles and Amphibians</b>						
Banded Gila monster	<i>Heloderma suspectum cinctum</i>	SGCN 1A	No	No	No	No
Sonoran desert tortoise	<i>Gopherus morafkai</i>	BLM-S CCA SGCN 1A	Yes	Yes	Yes	Yes

Source: BLM, Arizona – Bureau Sensitive Species List (February 2017); AGFD Environmental Online Tool (2020).

Status\*: BLM-S = Bureau of Land Management Sensitive Species; CCA = Candidate Conservation Agreement with the USFWS;

SGCN = Arizona Species of Greatest Conservation Need; 1A = Vulnerable as determined by SGCN categories and matches one of several criteria under the State Wildlife Action Plan; 1B = Vulnerable as determined by SGCN categories but does not match any criteria.

**Noxious and Invasive Species**

Executive Order 13112, signed on February 3, 1999, directed federal agencies to prevent the introduction and spread of invasive species. Executive Order 13751, signed on December 5, 2016, amends Executive Order 13112 and calls for further safeguards against the spread of invasive species through coordinated federal prevention and control efforts.

The ADOT District responded on December 2, 2019 to a request for information on the presence of noxious and invasive plants in the project area. Although a survey of the construction footprint was not conducted, two noxious and/or invasive plants, malta starthistle (*Centaurea melitensis L.*) and Russian thistle (*Kali tragus*), have previously been reported nearby.

#### Wildlife Connectivity

In 2006, the Arizona Wildlife Linkages Workgroup, a collaborative comprised of nine agencies, completed a linkages assessment to address statewide habitat fragmentation and important corridors for wildlife (Arizona Wildlife Linkages Workgroup 2006). Much of Kingman, including the project area, is located within Potential Linkage Zone 20 Hualapai Mountains – Cerbat Mountains, which is a migration corridor for mule deer.

#### *Environmental Consequences – Preferred Alternative*

The Preferred Alternative proposes to alter approximately 90 acres of habitat, both previously disturbed and undisturbed lands as part of the project activities. This disturbance could result in temporary or permanent impacts to potentially suitable foraging, breeding, or dispersal habitat for a variety of wildlife and impact native plants species.

#### Threatened and Endangered Species

A suitable habitat analysis was conducted for the four ESA-listed species identified within the project vicinity: California condor (*Gymnogyps californianus*), California least tern (*Sterna antillarum browni*), Yellow-billed cuckoo (*Coccyzus americanus*), and northern Mexican gartersnake (*Thamnophis eques megalops*). Because there is no suitable habitat within the project area, none of the ESA-listed species would be impacted by the West Kingman TI project. There would be no long-term or short-term impacts as a result of the Preferred Alternative.

#### BLM Sensitive Species

Four BLM sensitive species, western burrowing owl (*Athene cunicularia hypugaea*), Allen's big-eared bat (*Idionycteris phyllotis*), greater western mastiff bat (*Eumops perotis*), and Sonoran Desert tortoise (*Gopherus morafkai*) were identified as having the potential to occur within the project area. No suitable habitat exists within the construction footprint for the western burrowing owl; therefore, project activities are not anticipated to impact these birds.

Allen's big-eared bat and the greater western mastiff bat have been recorded near the West Kingman TI (AGFD 2019; Joelle Acton, BLM, personal communication, January 8, 2020). These bats roost in caves, abandoned mines, and rugged rocky canyons with abundant crevices; however, there is no suitable roosting habitat within the construction footprint for either species. Construction activities would remove vegetation, impact ephemeral waterways and occur at night temporarily impacting potential foraging by the bats. This would result in a short-term minor impact on these bats.

The Sonoran desert tortoise is protected under a Candidate Conservation Agreement to which USFWS, AGFD, and ADOT, among others, are signatories (USFWS and AIDTT 2015). Project activities, including addition of roadway surfaces in previously undisturbed lands, movement of equipment, loss of suitable



foraging habitat and potential shelter sites, and fragmentation of suitable habitat would result in short-term, minor, adverse impacts to individual tortoises. However, mitigation measures have been developed to minimize effects to the Sonoran desert tortoise as a result of these activities.

Therefore, construction of the project may affect individuals of Allen's big-eared bat, greater western mastiff bat, and/or Sonoran desert tortoise but is not likely to result in a trend toward federal listing or loss of viability for these species.

#### State Sensitive Species

During agency coordination meetings, AGFD expressed concerns regarding the disturbance to desert tortoise and raptor populations in the area, as well as wildlife designated as Species of Economic and Recreation Importance, including javalina and deer (Approved 2013 BE). Javalina, deer, raptors, and other wildlife in the area, including within the nearby recreation areas, may temporarily avoid the active work area during construction due to noise and human activity, but would be expected to resume use of the area once the project is complete. Project activities are anticipated to impact some State sensitive species during construction (noise, displacement due to habitat removal, human activity) but would be temporary; the likelihood of impacts to these species is low. As mentioned above, mitigation measures have been identified to reduce impacts to the Sonoran desert tortoise.

#### Migratory Birds

Potential exists for breeding birds protected by the MBTA to occur adjacent to the existing roadways and within the revised project area. Loss of suitable nesting habitat (including up to 40 acres of previously undisturbed land), construction activities during the breeding season (March 1 to August 31), and noise from construction activities can impact birds nesting adjacent to a roadway during the breeding season. Mitigation measures to avoid active bird nests during vegetation clearing are included in the project development; therefore, no significant impacts on migratory birds are anticipated.

#### Bald and Golden Eagles

Although golden eagles are known to occur in the project vicinity, activity associated with residential and commercial developments in Kingman reduces the suitability of habitat in the project vicinity. Construction of the Preferred Alternative would impact trees that eagles could use for nesting or perching; however, large trees would remain available in the surrounding area. Removal of potentially suitable foraging habitat within the project limits, including trees used for perching, due to expansion of roadway facilities would not be expected to disturb or result in loss of golden eagles.

#### Native Plants

Construction of the Preferred Alternative could impact two species of protected native plants: prickly pear cactus (*Opuntia* spp.) and yucca (*Yucca* spp.). Per the Arizona Administrative Code (Title 3, Chapter 3, Article 11, Appendix), both species are considered salvage restricted native plants and require a permit for removal. ADOT will coordinate with the Arizona Department of Agriculture to determine notification requirements for removal of protected native plants. With implementation of this mitigation measure, impacts to native plants would be minor.

### Noxious and Invasive Species

Two noxious and/or invasive plants, malta starthistle (*Centaurea melitensis L.*) and Russian thistle (*Kali tragus*), have been documented in the project vicinity. Several mitigation measures have been developed to control the introduction and spread of noxious and invasive species during project construction, including implementation of a Noxious and Invasive Plant Species Treatment and Control Plan. The potential for introducing or spreading noxious or invasive species during project construction is expected to be negligible with application of the mitigation measures.

### Wildlife Connectivity

Construction of the Preferred Alternative would expand the transportation corridor within the linkage and could impact the connectivity for wildlife movement within and between the surrounding mountains. ADOT continues to work with partners involved, including AGFD, and has considered wildlife movement patterns during project development.

### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, the West Kingman TI would continue to operate in its current configuration. No impacts related to threatened or endangered species, BLM or state sensitive species, migratory birds, bald or golden eagles, native plants, noxious or invasive species, or wildlife connectivity would occur.

### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor should follow ADOT's Clean Water Act Section 404/401 Guidance Manual, ADOT's Roadside Vegetation Management Guidelines, and ADOT's Standard Specifications for Road and Bridge Construction, and other applicable laws, regulations, and guidelines.

### ADOT District Responsibilities

- If any active bird nests cannot be avoided by vegetation clearing or construction, the Engineer will contact the Environmental Planning Biologist (602-712-7134 or 602-341-9331) to evaluate the situation.
- The Engineer will provide Sonoran Desert tortoise survey results to the Arizona Department of Transportation Environmental Planning biologist (email: bioteam@azdot.gov or 602-712-7134/602-341-9331).

### Roadside Development Section Responsibilities

- 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.

- The Arizona Department of Transportation Roadside Development Section will provide special provisions for the control of noxious and invasive plant species during construction that may require treatment and control within the project limits.

#### 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 lists 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 duration of construction and any landscape establishment period, 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, all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris, including plant parts, soil and mud, prior to the equipment entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil and mud, prior to leaving the construction site.
- If vegetation clearing will occur during the migratory bird breeding season (March 1 - August 31), the contractor shall avoid any active bird nests. If the active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1- February 28) vegetation removal is not subject to this restriction.
- The contractor shall employ a qualified biologist with necessary scientific collecting permit(s) to conduct a preconstruction survey for the Sonoran Desert tortoise.
- At least 10 (ten) days prior to construction or any ground-disturbing activities, the contractor will arrange for a qualified biologist with experience handling Sonoran Desert tortoises to conduct a pre-construction survey for the Sonoran Desert tortoise or potential tortoise burrows.
- No construction including pre-construction ground-disturbing activities shall begin until a qualified biologist has completed a survey for the presence of Sonoran Desert tortoises or potential desert tortoise burrows.
- 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, become familiar with the identification and avoidance of the Sonoran Desert tortoise, and follow the notification request, as applicable.

- The contractor shall require all on-site workers to check under their parked vehicles and equipment prior to driving to make sure there isn't a tortoise sheltering underneath the vehicle or piece of equipment. If a desert tortoise is found sheltering underneath a parked vehicle or piece of equipment, the tortoise shall be allowed to move out from under the vehicle on its own or be relocated following the current guidelines for Sonoran Desert tortoise handling before the vehicle can be moved.
- 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." If any tortoise is encountered during construction the contractor shall notify the Engineer to report the encounter.
- 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: bioteam@azdot.gov) within 24 hours of the encounter. Photographs should be taken of tortoises encountered and included in the report if possible.

### *Conclusion*

No threatened or endangered species or designated critical habitat would be affected by the proposed project. Construction of the Preferred Alternative would result in the loss of suitable foraging habitat and potential shelter sites for the Sonoran desert tortoise. Project construction is expected to occur during the breeding season, between March 1 and August 31, when nesting migratory birds may be present. In addition, the Preferred Alternative would remove native vegetation, including protected native plant species. Mitigation measures would be implemented prior to and during construction to minimize the impacts to Sonoran desert tortoise, migratory birds and their nests, and native vegetation. With the implementation of the mitigation measures, the proposed project is not anticipated to have significant impacts to biological resources.

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## O. Hazardous Materials

A hazardous material is any substance or combination of substances that causes or contributes to an illness or mortality or poses a substantial hazard to the environment or to human health and safety when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous materials and hazardous waste sites within the project area may pose liability and safety concerns.

### *Existing Conditions*

A Phase I environmental site assessment (approved 01/13/2020), a National Emission Standards for Hazardous Air Pollutants (NESHAP) survey for asbestos-containing material (ACM) (approved 12/20/2020), and a lead-based paint (LBP) sampling survey (approved 12/20/2020) were conducted to identify and evaluate the potential for hazardous materials.

### Phase I Environmental Site Assessment

The Phase I environmental site assessment was performed in general conformance with EPA All Appropriate Inquiries regulation (40 Code of Federal Regulations [CFR] 312.10) and American Society for Testing and Materials (ASTM) Standard E1527-13 to evaluate the potential for the presence of recognized environmental conditions (RECs). A REC is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

The Phase I environmental site assessment included a records review and a site reconnaissance of the project vicinity to observe current site conditions. The records review included a search of federal and state regulatory databases to identify RECs or other environmental concerns, along with a review of historical aerial photography and topographic maps. The following facilities (with quantities in parentheses) were identified in the project vicinity:

- Resource Conservation and Recovery Act Large and Small Quantity Generators (5)
- Emergency Response Notification System (2)
- Registered Underground Storage Tanks (USTs; 10)
- Leaking USTs (LUSTs) Incident Reports (17)
- RCRA Compliance Facility (1)
- Hazardous Materials Incidents Emergency Response Logbook (4)
- ADEQ Drywell Registration (1)
- Voluntary Environmental Mitigation Use Restriction (1)
- Numerous well registrations with the ADWR

The site reconnaissance was conducted in October 2019 to examine the project area and its vicinity for indications of activities involving the storage, use, and/or disposal of hazardous substances or petroleum products that could potentially impact soil or groundwater. No evidence of releases or the use or storage of hazardous substances, hazardous waste, or petroleum products was observed.

Asbestos-Containing Material

One hundred and thirteen (113) suspect ACM bulk samples were collected during a survey of the project limits. In accordance with current ADOT guidance, paint samples were also analyzed for asbestos content. Under 40 CFR 61, Subpart M, and 40 CFR 763, Subpart E, any material or product which contains greater than one percent asbestos is considered ACM. Asbestos at a level greater than one percent was not detected in any samples collected within the project limits. Due to safety concerns, the US 93 median barrier was not sampled for ACM.

Lead-Based Paint

Seventeen (17) suspect LBP chip samples were collected during a survey of the project area. Under Section 302(c) of the Lead-Poisoning Prevention Act, 42 U.S.C. 4822(c), and Section 401(9) of the Toxic Substances Control Act, 15 U.S.C. 2681(9), LBP is defined as paint with lead levels equal to or greater than 1.0 milligram/square centimeter (mg/cm<sup>2</sup>), or 0.5 percent by weight, or 5,000 milligrams/kilogram (mg/kg). Lead at a level greater than 0.5 percent by weight/5,000 mg/kg was detected in two samples collected within the project limits.

The Occupational Safety and Health Administration (OSHA) construction lead standard at 29 CFR 1926.62 governs construction work where an employee may be occupationally exposed to lead. Lead at a level greater than the analytical detection standard was detected in multiple samples collected within the project limits. Table 31 summarizes the LBP findings.

**Table 31. Lead Paint Sampling Results**

Location/Description	LBP Lead levels ≥ 0.5% by weight/5,000 mg/kg	OSHA Lead levels ≥ analytical detection level	Results (mg/kg)
West Kingman TI WB off-ramp catch basin gray drain grate paint	N	Y	47
West Kingman TI EB catch basin orange drain grate paint	Y	Y	420,000
Clack Canyon Road white striping paint parallel to bridges	N	Y	57
Clack Canyon Road old yellow striping paint parallel to bridges	Y	Y	7,600
US 93/Beale Street white curb paint at MP 70.3	N	Y	89
US 93/Beale Street gray light pole paint at MP 70.3	N	Y	2,300
US 93/Beale Street black sign pole paint at MP 70.3	N	Y	130
US 93/Beale Street blue curb paint at MP 70.3	N	Y	80
Beale Street yellow striping paint	N	Y	47
Beale Street yellow median paint	N	Y	340

### *Environmental Consequences – Preferred Alternative*

Multiple closed LUST cases are affiliated with properties located along US 93/Beale Street. Based on case closure and distance from the project area, none of the LUSTs pose a concern for construction of the proposed project. Open LUST sites are also present along US 93/Beale Street and along Stockton Hill Road. A regulatory file review was conducted to determine the potential environmental impact of these facilities. Based on the details of each facility, and information obtained from the ADEQ file review, it is unlikely that any of the LUSTs would be a concern for the West Kingman TI project. No further hazardous materials assessments are required. Regulated action levels of LBP are present in the project area, and the mitigation measures identified below would be implemented as part of the Preferred Alternative to address LBP and NESHAP requirements. With the implementation of mitigation measures, no impacts related to RECs or hazardous materials would occur under the Preferred Alternative. If the groundwater wells cannot be avoided through changes in project design, proper abandonment or regulatory closure would be required.

### *Environmental Consequences – No-Build Alternative*

Under the No-Build Alternative, the West Kingman TI would continue to operate in its current configuration, and no impacts related to RECs, hazardous materials, or LBP would occur.

### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor should follow the SAF-6.01 Asbestos Management Policy and ADOT's Standard Specifications for Road and Bridge Construction.

#### Design Responsibilities

- Prior to construction, a regulatory file review should be conducted by a qualified Hazardous Materials professional for a recently identified leaking UST at Woody's Food Store #131 located at 1000 West Beale Street to determine whether additional work is required. File review is to be submitted to the hazardous materials coordinator at [egreen@azdot.gov](mailto:egreen@azdot.gov) for review and approval.
- No disturbance to the old yellow striping paint on Clack Canyon Road parallel to the Clack Canyon Wash bridges will occur until the lead-based paint Removal and Abatement Plan is approved and implemented.

#### District Responsibility

- The contractor shall complete a National Emission Standards for Hazardous Air Pollutants notification for the work associated with the I-40 reinforced corrugated metal pipe culvert near Milepost 48.3, West Kingman Traffic Interchange Overpass Eastbound/Westbound Structure #s 1835/1836, Clack Canyon Wash Bridges Eastbound/Westbound Structure #s 1837/1838, White Cliff Road Overpass Eastbound/Westbound Structure #s 1839/1840, and US 93 RCB near Milepost 70.3 and submit it to the Engineer, who shall submit it to the ADOT Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for a five (5) working day review and approval. Upon approval, the contractor shall file the notification with the Arizona

Department of Environmental Quality at least ten (10) working days prior to the commencement of work associated with the Overpasses, bridges, and drainage structures within the project limits.

#### Contractor Responsibilities

- Due to the potential for the bridge joints for the West Kingman TI Overpass Eastbound/Westbound Structure #s 1835/1836, Clack Canyon Wash Bridges Eastbound/Westbound Structure #s 1837/1838, and White Cliff Road Overpass East Bound/West Bound Structure #s 1839/1840 having lead-based paint (>HUD/EPA levels) waste material generated prior to the removal of the bridge joints shall be properly disposed of in accordance with all applicable federal, state, and local regulations.
- The contractor shall complete a NESHAP notification for the work associated with the I-40 RCMP near MP 48.3, West Kingman TI OP EB/WB Structure #s 1835/1836, Clack Canyon Wash Bridges EB/WB Structure #s 1837/1838, White Cliff Road OP EB/WB Structure #s 1839/1840, and US 93 RCB near MP 70.3 and submit it to the Engineer, who shall submit it to the ADOT Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for a five (5) working day review and approval. Upon approval, the contractor shall file the notification with the Arizona Department of Environmental Quality at least ten (10) working days prior to the commencement of work associated with the OPs, bridges, and drainage structures within the project limits.
- For striping paint obliteration:
  - An approved contractor shall develop and implement a Lead-Based Paint Removal and Abatement Plan for the removal of the lead-based paint, Toxicity Characteristic Leaching Procedure testing of the generated waste stream, and proper disposal of the waste stream derived from the removal of the Clack Canyon Road old yellow striping paint parallel to the Clack Canyon Wash bridges within the project limits. The contractor shall select a lead abatement contractor that meets the qualification requirements specified within the special provisions and as approval by the Engineer. The contractor shall follow all applicable federal, state, and local codes and regulations, including Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2008 Edition), related to the treatment and handling of lead-based paint.
  - The contractor shall submit a Lead-Based Paint Removal and Abatement Plan for the removal of the Clack Canyon Road old yellow striping paint parallel to the Clack Canyon Wash bridges within the project limits to the Engineer and the Arizona Department of Transportation Environmental Planning hazardous materials coordinator (602.920.3882 or 602.712.7767) for review and approval at least 10 (ten) working days prior to paint striping obliteration activities.
  - No paint obliteration of the Clack Canyon Road old yellow striping parallel to the Clack Canyon Wash bridges shall occur until the Lead-Based Paint Removal and Abatement Plan is approved by the Arizona Department of Transportation Environmental Planning hazardous materials coordinator and implemented.



- Visible fugitive dust emissions from paint removal shall be controlled through wet or dry (e.g., vacuum) means during the removal process. If the liquid waste stream generated by a water-blasting obliteration method passes the Toxicity Characteristic Leaching Process analysis, it may be used as a dust palliative or for compaction on the project. If the water is not used on the project, it shall be properly disposed of in accordance with all applicable federal, state, and local regulations.
- No disturbance to the yellow striping paint on Clack Canyon Road parallel to the Clack Canyon Wash bridges will occur until the lead-based paint Removal and Abatement Plan is approved and implemented.
- The contractor shall not utilize any abrasive tools or methods for the removal of the painted drainage grates that would disturb the lead-based paint. This includes, but is not limited to, sawing, grinding, sanding, or heating. Woven straps (not linked chains) may be used to lift the drainage grate from the frame. The drainage grates, due to the lead-based paint, must be disposed in accordance with all applicable federal, state, and local regulations.
- For milling activities, the roadway surface preceding the milling machine shall be kept sufficiently wet so as to prevent the generation of any visible fugitive dust particles, but not so wet as to cause excess runoff from the roadway surface onto the roadway shoulder.

### *Conclusion*

Based on the Phase I environmental site assessment and the ACM and LBP testing performed for this project, construction of the Preferred Alternative could affect groundwater wells, impact ten locations containing lead paint, and disturb eight overpass, bridge, or drainage structures. Implementation of the mitigation measures described above would minimize any effects from potential ground disturbance related to hazardous materials concerns.

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## P. Material Sources and Waste Materials

Roadway construction projects often require the import of additional material, known as borrow, or the disposal of excess excavated material, known as waste.

### *Existing Conditions*

US 93 is an at-grade roadway. Much of the I-40 mainline was constructed at-grade except for the Beale Street and Stockton Hill Road TIs and the crossings over Clack Canyon and its tributaries. Along I-40 north of Clack Canyon, previous earthwork for initial construction of the interstate is visible in cut slopes adjacent to the roadway.

### *Environmental Consequences – Preferred Alternative*

Preliminary calculations indicate that the earthwork needs for the construction of the Preferred Alternative are balanced, meaning excess material would not be generated and materials would not need to be brought in to construct the project. The Preferred Alternative would not require the import of borrow material or the disposal of waste material, and no impacts related to material sources or waste sites would occur. If borrow or fill is needed, it would be the responsibility of the contractor to identify any needed material sources or waste disposal sites and to provide the environmental documentation regarding the potential use of these sites, as specified in the ADOT *Standard Specifications for Road and Bridge Construction* (2008).

### *Environmental Consequences – No-Build Alternative*

The No-Build Alternative would not require the use of borrow material or waste sites. Therefore, the No-Build Alternative would have no impact related to the use of material sources or waste sites.

### *Environmental Commitments and/or Mitigation Measures*

ADOT and the Contractor should follow ADOT's Standard Specifications for Road and Bridge Construction.

### *Conclusion*

The Preferred Alternative is currently a balance project, and no borrow or fill material is anticipated to be needed. If they become necessary, the contractor would use an approved ADOT facility or provide appropriate environmental documentation.

**Q. Secondary Effects**

ADOT uses the term secondary impacts synonymously with indirect impacts, which are defined by the CEQ regulations as “effects which are caused by the [proposed] action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate...”

Actions that may induce secondary (or indirect) impacts are perhaps less obvious than those identified as direct impacts. They are more difficult to quantify, additive in nature, or long-term in occurrence and effect. This section identifies the likely foreseeable secondary impacts that would result from the construction of the proposed roadway; any cumulative impacts are addressed in the following section.

The FHWA has developed interim guidance on the analysis of indirect and cumulative impacts (FHWA 2003), which supplements the CEQ guidance. Combined, these documents provide the primary basis for analysis. The classification of secondary and cumulative impacts, in accordance with FHWA guidance, is presented in Table 32.

**Table 32. Secondary and Cumulative Impacts Classification**

Impact Category	Impact Classification	Description
Type	Neutral, positive, or negative	Compares the final condition of a given resource with its existing condition (assumes that the expected impact occurs); impacts on personal property are considered negative
Severity	Minor, moderate, or substantial	Considers the relative contribution of the proposed action to a given impact
Duration	Temporary or permanent	Assumes “permanent” unless otherwise specified

Source: ADOT 2019d

Secondary impacts “may include growth inducing effects and other effects related to induce changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems” (40 CFR 1508.8),

Potential secondary impacts are qualitatively discussed and based on reasonably foreseeable future actions in the project area that are attributable to the construction of the Preferred Alternative. Secondary impacts on resources described in IV Sections A to O are considered in this section. No secondary impacts were identified for utilities, hazardous materials, or material sources and waste materials. For most resources, the No-Build Alternative did not result in any impacts. Therefore, secondary and cumulative impacts for the No-Build Alternative are only noted when present.

### Land Use

The Preferred Alternative does not include new exits or access points to new areas, so growth and development would not likely be induced by the project. However, proximity to the new ramp alignment could affect the type of future development that may occur. This would be reviewed by the County or City, depending on location, for compliance with planning documents. Since these agencies would still have oversight over any land use changes, no secondary impact is anticipated to occur.

### Social and Economic Considerations

The Preferred Alternative would improve local access to businesses and services along Beale Street by removing regional/passthrough traffic from the local road. This change would reduce traffic and provide an increased opportunity for local traffic to select the businesses along Beale Street, where high traffic volumes would potentially result in people selecting other locations to conduct business.

The Preferred Alternative would reduce the drive-by traffic potentially reducing the number of vehicles that see the different businesses or services. In general, it is anticipated that motorists that were planning to stop would do so regardless of the new road configuration, and thus would result in only a minor secondary impact. Overall, the secondary impact resulting from changes in consumer behaviors is anticipated to be minor.

In contrast, the No-Build Alternative would not alleviate the congestion on Beale Street and in the project vicinity. This would potentially affect the choice of potential customers resulting in the customers shopping elsewhere where access is more convenient. This would result in a minor adverse secondary effect on the businesses near the project area.

### Title VI and Environmental Justice

Neither the Preferred Alternative or the No-Build Alternative is anticipated to result in disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23.

### Cultural Resources

While a new ramp between I-40 and US 93 would be constructed, it would not introduce new access to areas along it and would not result in an increase in use or development in the areas adjacent to the proposed improvements. No secondary impacts are anticipated.

### Section 4(f) Resources

The Preferred Alternative would result in a *de minimis* impact on the CFRA and one historic property. The proposed improvements are being constructed to accommodate and reconfigure the anticipated traffic and would not induce additional trips. No additional development is anticipated so secondary impacts to Section 4(f) resources would not occur. Both the CFRA or golf course are currently adjacent to US 93 and I-40, respectively. Increased noise due to increased capacity and the new I-40 to US 93 ramp would

potentially result in a minor impact on the experience of recreational users. This would be minimized where practical and feasible through the use of noise barriers.

#### Traffic and Transportation, Air Quality, and Noise

By removing regional/passthrough traffic from the local roads and increasing the safety in the area of the existing Beale Street TI, motorists in the project vicinity would likely modify the travel patterns, increasing use of areas that may have previously been avoided due to congestion and high crash incidents. This would likely result in minor changes in traffic volumes on adjacent roads. This change in driver behavior would result in a minor impact that would overall be beneficial as it would balance traffic in the area. In addition, the change in travel patterns would result in minor shifts in localized emissions of pollutants and the generation of noise. The removal of much of the truck traffic would result in less noise and diesel emissions along Beale Street but would increase comparably along the proposed ramps. There would be an overall benefit as the traffic would all move more efficiently resulting in short travel times and reduced idling.

#### Visual Resources

Since the project is not anticipated to induce growth or otherwise change the use of the areas near CFRA, including Camp Beale Springs, no secondary impact to the visual character of the area is anticipated to occur.

#### Drainage, Floodplain, and Section 404 and 401 of the Clean Water Act

The project would not be expected to result in secondary impacts to water resources. Existing watercourses would be maintained in their current locations, and modifications would not be expected to result in a degradation of water quality or volume.

#### Biological Resources

Once the Preferred Alternative is constructed, noise would be introduced to the vicinity of the new ramp between I-40 and US 93. The increase in noise would result in a secondary impact of wildlife and birds that occur near the project, including the Allen's big-eared bat, western mastiff bat, and the Sonoran desert tortoise. The increase in noise would be minor, would only affect those individuals located close to the project, and would not result in a trend toward federal listing or loss of viability.

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## R. Cumulative Impacts

As identified in 40 CFR 1508.7, “Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of other projects. Table 33 identifies whether direct and indirect impacts would occur for each resource under the Preferred Alternative and consequently whether there would be a contribution to cumulative impacts. Resources that would not contribute to cumulative impacts are not addressed further in this section.

Past, present, and reasonably foreseeable future actions considered in this analysis are the result of planned/proposed projects developed by the City of Kingman, Mohave County, ADOT, WACOG, and BLM. This development would likely occur eventually whether the West Kingman System TI is implemented.

**Table 33. Resources to be Considered in Cumulative Impacts Analysis**

Resource	Direct or Indirect Impact	Cumulative Impact
Land Ownership, Jurisdiction, and Land Use	Yes	Yes
Social and Economic Considerations	Yes	Yes
Title VI and Environmental Justice	Yes	Yes
Cultural Resources	Yes	Yes
Section 4(f) Resources	Yes	Yes
Traffic and Transportation	No	No
Air Quality	No	No
Noise	Yes	Yes
Utilities	No	No
Visual Resources	Yes	Yes
Drainage and Floodplain and Waters of the U.S.	Yes	Yes
Biological Resources	Yes	Yes
Hazardous Materials	No	No
Material Sources and Waste Materials	No	No

### Geographic Boundaries

Since the majority of the project is located within existing ROW and there would be minimal changes in access, the geographical boundary for the assessment of cumulative impacts considers the City of Kingman and a mile radius around the project limits outside of the City.

### Temporal Boundaries

The timeframe used for this analysis includes the actions in the past that have brought Kingman to where it is today through 2042, which represents the design year for the project.

### *Past Actions/Completed Projects*

Given its location within an urban setting, countless past actions have influenced the project vicinity. This section broadly characterizes completed projects and relies upon current environmental conditions to reflect the impacts of past actions, an approach consistent with the 2005 CEQ memorandum, which states that "...agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions" (CEQ 2005). General projects are noted below to provide context for this analysis.

- Retail and commercial businesses along US 93
- Development of trails and other recreational facilities within CFRA
- Construction of utilities that cross the CFRA
- Recreational, residential, municipal, and commercial projects along I-40
- Beale Street TI interim improvements (completed in 2016)
- Development of interpretive signs and recreation area at Camp Beale Springs

### *Ongoing/Present Actions*

Ongoing or present actions in the project vicinity that could contribute to cumulative impacts include:

- Water and sewer line improvements
- Stockton Hill Road mill and overlay and culvert extension
- Kingman Industrial Park
- Shinarump Gravel Pit
- Residential, commercial, and retail development

### *Reasonably Foreseeable Future Actions*

Reasonably foreseeable future actions that could contribute to cumulative impacts include:

- Classification of US 93 and I-40 as I-11 – within and around the project limits
- Spot safety improvements at the West Kingman TI
- Bridge deck rehabilitation where I-40 crosses Holy Moses Wash
- UniSource overhead 230 kV project – crosses the project and CFRA at the west end of the project

Other projects that are ongoing in the Kingman area but out of the immediate project vicinity include:

- Rancho Santa Fe TI and Parkway – west of the northern end of the project along I-40
- Kingman Crossing TI and Kingman Crossing Boulevard – west of the northern end of the project along I-40
- Airway Avenue extension – west of the northern end of the project along I-40
- East Kingman TI Overpass WB Bridge #1358 Rehabilitation

### Land Use

The Preferred Alternative would have an impact on land use with the conversion of 75.8 acres from 17 parcels. It is possible that future development of the I-11 project would potentially affect some of the land adjacent to the existing facility to accommodate widening. If this occurs, there would be a cumulative impact on the CFRA, BLM, City of Kingman and private land, but this impact would not be significant. Any future widening project would undergo a separate environmental study and evaluation of cumulative impacts. In the context of past, current, and reasonably foreseeable actions within the study area and surrounding valley, the Preferred Alternative would have a minor, negative, permanent cumulative impact to land ownership and land use.

### Social and Economic Considerations

The Preferred Alternative would result in a beneficial impact on the vehicular movement in west Kingman and facilitate local access to businesses. The proposed improvements contribute beneficially to the overall movement of people and goods in Kingman.

A small portion of the CFRA would be acquired for the Preferred Alternative. The future I-11 would potentially require additional land from the CFRA if the US 93 alignment is widened or improved to meet standards for an interstate highway. This would result in a cumulative impact. The CFRA is 11,300 acres in size and trails and trailheads are typically removed from the US 93 alignment. Minor additional widening along the US 93 corridor, if needed, would result in a minor cumulative impact. The Preferred Alternative would not adversely affect community cohesion as it would not alter the location of, or access to any gathering places or activity centers that are important to social networks.

### Title VI and Environmental Justice

Minority and low-income populations occur adjacent to the proposed improvements. One of the proposed alignments of the UniSource overhead 230 kV project would occur near proposed roadway acquisitions within these areas. Combined with the Build Alternative, the construction and new facilities would result in a minor cumulative impact on nearby residences. This impact would not disproportionately adversely affect low-income or minority populations.

In addition, a portion of the CFRA would be converted to a transportation use. Any future widening to accommodate increase in volume on the I-11 would further require ROW from the CFRA. Given the size of this recreation area, the impact, even when combined with other present and future actions would result in a minor cumulative impact. This impact would not disproportionately adversely affect low-income or minority populations.

The Preferred Alternative would adversely affect the visual character where the new ramp from I-40 to US 93 would be constructed. This would be particularly noticeable in the areas closest to US 93 and near the ramp's alignment. More distant parts of the block groups containing low-income and minority populations would not be affected. Other projects, including the Unisource power line and to some extent future widening of I-11 would also affect the visual character of this area. Given the small extent of this



impact in combination with future visual impacts, the cumulative impact would be minor. This impact would not disproportionately adversely affect low-income or minority populations.

Finally, noise increases associated with the Preferred Alternative in combination with other past noises associated with the growth and development of Kingman, as well as future projects such as the construction associated with future upgrading and use of US 93 to I-11 would add additional noise to these areas, resulting in a minor cumulative impact due to the attenuation of noise with distance away from the project limits. This impact would not disproportionately adversely affect low-income or minority populations. In the context of past, current, and reasonably foreseeable actions within the study area and surrounding area, the Preferred Alternative would have a minor adverse impact due to noise. Proposed mitigation would minimize the Preferred Alternative's contribution to the noise environment.

### Cultural Resources

Numerous archaeological and historical sites occur in the project vicinity. Past projects, such as the development of structures and roads/infrastructure in Kingman have resulted in the disturbance of an unknown number of sites. The Preferred Alternative would affect three cultural resource sites which would combine with previous projects over time that have also affected these resources. Future widening, if necessary, in association with the I-11 would also potentially affect resources in this area. While the project impacts would be mitigated so as not to be adverse in nature, they would constitute a minor cumulative impact. Access to previously inaccessible areas would not occur as a result of the Preferred Alternative.

### Section 4(f) Resources

The Preferred Alternative would result in the acquisition of 12.65 acres of the CFRA. Other projects would potentially require additional area within CFRA, such as the Unisource overhead 230 kV project (if the alignment is selected) and the future I-11 if widening the ROW is required. Neither of these projects would require a large footprint within the recreation area. Both of these projects would have additional environmental and cumulative evaluations conducted that would further evaluate potential impacts. Only the I-11 project would be required to evaluate Section 4(f) resources as the Unisource project is not a transportation project. In the context of past, current, and reasonably foreseeable actions within the region of influence, the Preferred Alternative would have a minor negative impact on recreational resources afforded protection under Section 4(f).

### Noise

The study area has experienced increased noise since Kingman was first founded as a result of growing population and associated human activities. The Preferred Alternative would result in improved circulation on the transportation facilities. The higher travel speed, areas of new alignment, and shift in the existing alignment to widen would result in a long-term increased noise generation as a result of the Preferred Alternative. When combined with existing noise, the modeled noise would warrant noise barriers be constructed in some locations. The future I-11 and future development in the project vicinity would

potentially result in additional noise as would other current and future road projects. Noise impacts are typically localized due to its attenuation over distance. The long-term impacts associated with the Unisource project would be minimal after construction is complete. In the context of past, current, and reasonably foreseeable actions within the study area and surrounding area, the Preferred Alternative would have a minor negative impact due to noise. Proposed mitigation would minimize the Preferred Alternative's contribution to the noise environment.

#### Visual Impacts

The visual character of the project vicinity has changed over time as the City of Kingman has developed and grown. The Preferred Alternative would result in a visual change where the new ramp connects I-40 and US 93. Currently, there is little development in this area. The introduction of the road would alter the topography with cuts and fills and create a linear feature that traverses the alignment. Other projects that would potentially occur in the general area of the project include the potential Unisource overhead power lines, which would also create a linear feature on the landscape, and development that would potentially occur on the private land nearby. Other future development along the I-40 and US 93 within the project vicinity would also contribute to visual changes. Together all of these things would result in a cumulative change in the visual character of the area. However, as Kingman continues to grow, this type of visual change is typical and is consistent with the typical person's expectations. There would be little change in the visual character of the CFRA where the expectations for a natural or undeveloped visual experience is greater. In the context of past, current, and reasonably foreseeable actions within the study area and surrounding area, the Preferred Alternative would have a moderate impact on the views of the area. Proposed mitigation would minimize the Preferred Alternative's contribution to the visual environment.

#### Drainage and Floodplains and Waters of the U.S.

The project would result in approximately a 1.1-acre disturbance to the 100-year floodplain at Clack Canyon. Coordination with the Mohave County Flood Control District regarding floodplain encroachment and the Corps pertaining to Clean Water Act permitting would ensure appropriate measures would be implemented to minimize impacts. Other projects constructed west of I-40 near Clack Canyon, including past development or residential areas and associated roads, likely have contributed to changes in the drainage of the area and discharge into the wash. The contribution of the project would be result in a minor cumulative impact to the drainage in the project vicinity and to Clack Canyon.

#### Biological Resources

The Preferred Alternative would result in long-term impacts on the tortoise due to lost habitat. Other actions past, present and foreseeable projects, including the Unisource power line and I-11 in the immediate area of the project and other transportation projects and private development would also potentially affect tortoise habitat. In the context of past, current, and reasonably foreseeable actions within the study area and surrounding area, the Preferred Alternative would have a moderate long-term impact on tortoise. Proposed mitigation would minimize the Preferred Alternative's contribution to impacts on the tortoise.

Loss of nesting habitat could affect migratory birds. Other undertakings that could occur in the same vicinity such as ongoing development of private parcels or the construction of I-11 or the Unisource transmission line would have the potential to further reduce nesting habitat. However, since nests would be avoided during construction; cumulative impacts would be minor.

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## V. Public and Agency Coordination

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As described in Section I.C, *Project Background and Overview*, numerous studies have been conducted for the I-40/US 93 interchange (refer to Table 1). Each of these assessments included public and agency coordination to identify potential issues and inform ongoing design concepts. Most recently, a phased public and agency involvement strategy was conducted to support preparation of the 2015 DCR and Working Draft EA, which is summarized below and incorporated here by reference. Because the current design is a refinement of prior design concepts, public and agency involvement is a continuation of the previous efforts.

ADOT held scoping and information meetings in Kingman to facilitate agency and public participation as described in the following sections. These meetings offered the public and attending organizations the opportunity to speak one-on-one with ADOT officials, project planners, and engineers. Conversely, the meetings allowed ADOT officials, project engineers, and planners the opportunity to hear firsthand the concerns of those who might be affected by the project.

### A. Public Involvement

ADOT typically conducts early coordination for EA projects with federal and state agencies and local governments and holds a public scoping meeting in accordance with 40 CFR 1506.6 and 23 CFR 771.105(c), which require that practitioners “make diligent efforts to involve the public” in the NEPA process. Early agency coordination led to refining the study area, project purpose and need, and alternatives. It also provided an opportunity to gather information on environmental resources and receive input from resource agencies regarding study expectations and potential mitigation requirements. Public and agency outreach activities were conducted in accordance to the ADOT Public Involvement Plan that complies with federal nondiscrimination requirements for Title VI, EJ, and LEP, which has been approved by FHWA and complies with all Title VI, EJ, NEPA, and Limited English Proficiency (LEP) requirements.

This chapter provides an overview of previous outreach activities, outlines project study coordination activities since initiation of the NEPA process for this study, and summarizes the comments received during public and agency scoping.

#### *Public Scoping*

Initial scoping for this project was conducted on September 14, 2011. ADOT held this public scoping meeting at the Mohave Community College Kingman Campus, Room 200F (1971 Jagerson Avenue) to introduce the study to community members and to identify potential issues, concerns, and opportunities at an early stage of highway project development. ADOT distributed postcards to approximately 26,650 Kingman residents and businesses in the following zip codes 86413, 86401, 86431, and 86409 on Monday, August 29, 2011. In addition, ADOT placed a newspaper ad in the Kingman Daily Miner on Wednesday, August 31, 2011, and distributed a media release to local media including the Kingman Daily Miner, Mohave Valley Daily News, Today’s News Herald, The Standard, and the Laughlin Times on September 6,

2011. Notification posters were placed in 13 locations throughout the Kingman area including the Mohave Community College, Starbucks (Stockton Hill Road), Mohave County Library, Mohave County Administration Building, Kingman Regional Medical Center (two locations), Kingman Chamber of Commerce, Kingman Visitors Center, Kingman Post Office, Mohave County Courthouse, City of Kingman Complex (two locations), and Travel America.

At the meeting, ADOT Community Relations staff welcomed participants and thanked them for their interest in the study, introduced the study team members, and briefly reviewed the purpose of the meeting. The engineering team described the purpose and need for the study, the study area, recommended corridors from the Feasibility Study, potential additional corridors, and the identified opportunities and constraints. The meeting concluded with a question and answer session (see Appendix B for additional information and materials).

### *Public Information Meetings*

A public information meeting was held on March 29, 2012 at the Lee Williams High School Auditorium (400 Grandview Avenue). The purpose of the public information meeting was to provide an update to the community on the progress of the study, present the results of the corridor evaluation process, introduce feasible alignment alternatives, and to solicit feedback on the three candidate alignments under consideration for further evaluation in the development process.

On September 26, 2013, ADOT held another public information meeting at the Lee Williams High School Auditorium (400 Grandview Avenue) to provide an update on the alignment evaluation process, identify the selection of a Most Favorable Alternative as identified in the Draft DCR, and continue to solicit feedback on the project.

On July 22, 2019, a meeting between ADOT and the business community along Beale Street was held at the Mohave County Building. Fifteen business owners and residents participated. The project team and attendees reviewed the maps and questions were answered. Questions asked related to the roadway alignment, profile, structures, project limits. In addition, participants asked about access to and from Beale street as well as proximity to their business or residence. Finally, information was provided about the project schedule and project construction/completion timeline.

## **B. Agency Involvement**

### *Agency Scoping*

An agency scoping meeting was held on September 14, 2011 at the City of Kingman Council Chambers (310 N. Fourth Street) to discuss issues, concerns, and opportunities to be addressed during development and evaluation of the I-40/US 93 West Kingman TI corridor alternatives. The project team described the purpose and need for the project, process and schedule, corridor feasibility, and the process for developing corridor alternatives. Study vicinity maps, information handouts, and meeting exhibits were available for examination and comment. ADOT distributed invitation letters to 57 individuals representing local, regional, state, and federal government agencies as well as private education facilities, natural

resource agencies, utility companies, and local economic development organizations. In addition, ADOT emailed invitations to 50 individuals representing ADOT, FHWA, and consultants (see Appendix B).

### *Agency Information Meetings*

ADOT held an agency information meeting on March 29, 2012 at the City of Kingman Council Chambers (310 N. Fourth Street). The purpose of the meeting was to update agency representatives about the I-40/US 93 TI study and to seek insight from agency representatives regarding the three candidate alignments recommended for further consideration.

A second agency information meeting was held on September 26, 2013 at the City of Kingman Council Chambers (310 N. Fourth Street) to provide an update on the study and to review the process used to identify a Most Favorable Alignment alternative for the I-40/US 93 West Kingman System TI.

Since February 27, 2019, quarterly meetings are being held with the project team and the County Board and Town Council, separately. These meetings are intended to provide the most current information on how the design is progressing, to identify any questions or concerns from the agencies or their public, and to allow questions to be answered.

On September 3, 2019, ADOT addressed the Kingman City Council with an update on the West Kingman TI project. Council members inquired about construction phasing, construction duration, and public meetings, the location of the “Welcome to Kingman” sign, and traffic operations.

On January 21, 2020, the ADOT project manager, ADOT District, ADOT Communications, and the environmental team met with the BLM Kingman office to update them on the changes since its reinitiating and to identify any issues or concerns that they may have regarding environmental impacts. Issues identified included addressing focused primarily on biological and visual resources, and the schedule for reviewing technical documents and the EA.

On February 18, 2020, presentations to the County and City were made, providing a progress report and update and providing an opportunity for questions to be answered. The project team attended the meetings and presented to the Mohave County Board of Supervisors at 9:30 am during their official board meeting; all board members and key staff were present. In addition, there was good public attendance at the board meeting. The presentation given was also attached to the public agenda and provided to the board members (see Appendix B). Board members thanked ADOT and team for the presentation, the update and for keeping them informed; They asked several questions about construction timing and facilitating travel movement through the construction zone; They expressed continued support for the project and a desire to expedite, if possible.

Later on, February 18, 2020 at 5PM, the project team provided the same information at the regular City Council meeting. The meeting was attended by the Mayor and entire Council were present along with Key City staff; in addition, there was good public attendance. The presentation was positively received. The mayor and council were supportive of the project and expressed a strong desire to expedite it, if possible. They also expressed their desire to work with ADOT regarding a Gateway entry feature at the northern

side of the project along Beale Street. Finally, they inquired about and stated their eagerness to attend and participate in the upcoming public hearing that is tentatively scheduled in May 2020.

### *Public Hearing*

The Draft EA will be made available for public review and comment for a 30-day comment period. This began on May 7, 2020 and will end on May 6, 2020. The Draft EA is posted online at <https://www.azdot.gov/WestKingmanTIP>, and copies are available for review by appointment (call 928.681.6010) during normal business hours at the following location:

ADOT Northwest District Office  
3660 East Andy Devine Avenue  
Kingman, Arizona  
Open from 8AM – 5PM Monday – Friday

A virtual public hearing will be held during the Draft EA review period on May 28, 2020, from 6:00PM to 7:30PM. Because of the COVID-19 orders prohibiting gatherings, this meeting will be held virtually. There will be several ways in which the public can participate.

A Telephone Town Hall will be available. This Townhall will be broadcast via a Webex Live Event on the internet and on AM and FM radio stations. The meeting will consist of a presentation of project information, followed by an opportunity for the public to make comments via telephone, either publicly to the project panel and broadcasted on the Townhall, or privately to a court report. Support materials, such as the presentation and a fact sheet, will be available on the project website.

Comments can be submitted at any time during the comment period using the following methods:

**Mail to:**

West Kingman TI Study Team  
c/o HDR, Inc.  
20 East Thomas, Suite 2500  
Phoenix, Arizona 85012

**Telephone:** Study Information Line 602-474-3919

**Email to:** WestKingmanTI@hdrinc.com

**Online at:** [azdot.gov/WestKingmanTIP](https://www.azdot.gov/WestKingmanTIP)

Agency, tribal, and public comments received by ADOT during the public comment period will be incorporated and considered in the Final EA and, if applicable, the Finding of No Significant Impact, along with ADOT responses to each comment.

Pursuant to Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act (ADA) and other nondiscrimination laws and authorities, ADOT does not discriminate on the basis of race, color, national

origin, sex, age, or disability. Persons that require a reasonable accommodation based on language or disability should contact Michele Beggs at [mbeggs@azdot.gov](mailto:mbeggs@azdot.gov) or leave a voicemail at 928-681-6054. Requests should be made as early as possible to ensure the State has an opportunity to address the accommodation.

De acuerdo con el título VI de la Ley de Derechos Civiles de 1964 y la Ley de Estadounidenses con Discapacidades (ADA por sus siglas en inglés), el Departamento de Transporte de Arizona (ADOT por sus siglas en inglés) no discrimina por raza, color, nacionalidad, edad, género o discapacidad. Personas que requieren asistencia (dentro de lo razonable) ya sea por el idioma o por discapacidad deben ponerse en contacto con Michele Beggs at [mbeggs@azdot.gov](mailto:mbeggs@azdot.gov) (928-681-6054). Las solicitudes deben hacerse lo más pronto posible para asegurar que el equipo encargado del proyecto tenga la oportunidad de hacer los arreglos necesarios.

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VI.

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