FINAL ENVIRONMENTAL ASSESSMENT ERRATA SHEET

10 BROADWAY CURVE

Interstate 10 Broadway Curve: I-17 (Split) to SR202 (Santan Freeway)

Maricopa County, Arizona

April 2020

Federal Aid No. 010-C(220)T

ADOT (TRACS) No. 010 MA 149 F0072 01C

ADOT

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 Arizona Department of Transportation.

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Arizona Department of Transportation

FINDING OF NO SIGNIFICANT IMPACT

For

Interstate 10 Broadway Curve: I-17 (Split) to SR202 (Santan Freeway)

Maricopa County, Arizona

Federal Aid No. 010-C(220)T

ADOT Project No. 010 MA 149 F0072 01C

ADOT has determined that this project will not have any significant impact on the human or natural environment. This finding of no significant impact is based on the attached environmental assessment, which has been independently evaluated by ADOT and determined to adequately discuss the environmental issues and impacts of the proposed project. The environmental assessment provides sufficient evidence and analysis for ADOT to determine that an environmental impact statement is not required. ADOT takes full responsibility for the accuracy, scope, and content of the attached environmental assessment.

Approved by: DocuSigned by: Paul O'Brien 69D3A817999345F... Date: 4/27/2020

Paul O'Brien, PE
Administrator
Environmental Planning
Arizona Department of Transportation

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 Arizona Department of Transportation.

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Contents

I. INTRODUCTION

Project Background and Location

A Draft Environmental Assessment (EA) for Interstate 10 Broadway Curve: I-17 (Split) to SR 202 (Santan Freeway), herein referred to as I-10 Broadway Curve, 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 to 1508), with the Arizona Department of Transportation (ADOT) acting as the lead federal agency. 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 (MOU) dated April 16, 2019 and executed by the Federal Highway Administration (FHWA) and ADOT.

The project is located within the City of Phoenix, the City of Tempe, the Town of Guadalupe, and the City of Chandler, all within the Maricopa Association of Governments (MAG) region. The project's study area is defined as an area approximately 1/8 (0.125) mile around the existing ADOT right-of-way, including any parcels that may be affected (temporarily or permanently) by proposed improvements. The study area begins on the west with the Interstate 17 (I-17) (I-10 Milepost [MP] 149.5), continues east and south on Interstate 10 (I-10) to the State Route (SR) 202L Santan Freeway (MP 161), and extends approximately 1.0 mile north along the SR 143 Hohokam Expressway and approximately 1.0 mile east along the United States Route (US) 60 Superstition Freeway.

Without major improvements, I-10 in the study area would suffer degraded traffic conditions, travel delays, and challenging mobility for moving goods, services, and people through the study area. The Selected Alternative will address the needs in the study area by the following:

- Maintaining the current functionality and mobility of the I-10 corridor
- Providing regional mobility and access for economic centers
- Accommodating current and planned system linkages for bus services using I-10

Summary of the Draft Environmental Assessment

The Draft EA was completed and approved by ADOT in October 2019 with a public review and comment period from October 4, 2019, to November 18, 2019. The Draft EA was available online on the project website (https://www.azdot.gov/I10BroadwayCurve), and hard copies of

the document were available for public review during normal business hours through November 18, 2019, at the following locations:

- Burton Barr Central Library: 1221 N. Central Ave, Phoenix, AZ 85004 (602-262-4602)
- Ironwood Library: 4333 E Chandler Blvd, Phoenix, AZ 85048 (602-534-1905)
- Guadalupe Town Hall: 9241 S Avenida del Yaqui, Guadalupe, AZ 85283 (Phone number not available)
- Mesa Public Library: 64 E 1st St., Mesa, AZ 85201 (480-644-3100)
- Tempe Public Library: 3500 S. Rural Rd., Tempe, AZ 85282 (480-350-5557)
- South Mountain Community Center: 212 E Alta Vista Rd, Phoenix, AZ 85042 (602-495-0950)
- Southeast Regional Library: 775 N Greenfield Rd., Gilbert, AZ 85234 (602-652-3000)
- Chandler Public Library: 22 S. Delaware St., Chandler, AZ 85225 (480-782-2804)

A public hearing was held during the Draft EA review period on Thursday, October 24, 2019, from 5:30 to 8:30 p.m. at the DoubleTree by Hilton Hotel Phoenix Tempe located at 2100 South Priest Drive, Tempe, Arizona, to provide opportunity for review and comment. The public hearing was an open house format and included an informational video in English and Spanish, formal presentations by study team members, and an opportunity to provide oral remarks before a formal study panel. Comment forms and court reporters were also available to record written and oral comments for the study record from members of the public. Printed and visual materials were available in English and Spanish, and translations in Spanish, Korean, Vietnamese, and Chinese were available upon request as well.

The public review period and the public hearing were advertised through various media outlets to reach different sectors of the public. These included direct mailers and newspaper, digital, and radio advertisements (copies of all advertisements are available in Appendix B):

- **Direct Mail Mailers:** Using the United States Postal Service's (USPS) Every Door Direct Mail service, ADOT mailed direct mailers that advertised the public hearing and Draft EA Repository locations to more than 65,000 residences and businesses within a one-mile radius of the study area limits. Copies of the mailer were also hand-delivered to homes and businesses in the Town of Guadalupe and the Rancho Tempe Mobile Home Park in Tempe, which is not served by the USPS.
- **Newspaper Advertisements** – ADOT purchased print advertisement placements in *The Arizona Republic*, *La Voz* (Spanish Language) and *East Valley Tribune,* which have a

reading audience within and around the study area. These advertisements announced the availability of the Draft EA for public review and invited the public to attend the public hearing.

- **GovDelivery –** Using GovDelivery notifications, ADOT emailed the date and location of the public hearing to 35,888 recipients three times prior to the meeting
- **Digital advertisements –** ADOT purchased online advertisements on *AZCentral.com, T*he Arizona Republic's website. These advertisements encouraged attendance at the public hearing and clicked through to the study website. These advertisements were geotargeted to reach more than 100,000 online viewers within the study area and surrounding communities.
- **Radio advertisements -** ADOT sponsored nine "Detour Dan" traffic reports on KTAR News Radio during the peak morning travel hours in the days leading up to the public hearing to encourage attendance at the event.

This Final EA provides ADOT's responses to public and agency comments made during the comment period and during the public hearing (see Appendix A). It also provides additional information, data, or revisions to the Draft EA, where necessary, and is intended to be used in conjunction with the Draft EA. This Final EA includes:

- a list of environmental commitments and mitigation measures to be undertaken by ADOT and the designated construction contractor
- revisions to the Draft EA (errata)
- a summary of public comments
- public comments and ADOT's responses (Appendix A)
- I-10 Broadway Curve Public Hearing Summary Report (Appendix B), containing:
  - public hearing summary
  - meeting notifications
  - hearing materials and presentation
  - comment forms received
  - public hearing transcripts
  - other public hearing information

Additionally, 2020 Preliminary Jurisdictional Delineation (Appendix C) and Final Air Quality Technical Report (Appendix D) are included as appendices to this document.

With the completion of this Final EA and the issuance of a finding of no significant impact (FONSI) by ADOT, the NEPA requirements for this project have been met.

Selected Alternative

ADOT has taken the alternatives that were developed and screened in prior transportation studies, incorporated input from the public and stakeholder outreach undertaken in those studies as well as public, agency, and Cooperating Agency comments from the current study, and built on these findings to arrive at the Selected Alternative for this project. Construction of the Selected Alternative would consist of the following major elements:

- Widening to the outside and restriping I-10 within the study limits
- Widening the existing Salt River Bridge to accommodate seven GPLs and two HOV lanes between 24th Street and 32nd Street
- Flaring the west end of the Salt River Bridge to accommodate proposed future reconstruction of the I-10/I-17 system interchange
- Reconstructing the SR 143, Broadway Road, and 48th Street interchanges and connecting them to new C-D roads
- Constructing a direct HOV connection between SR 143 and I-10 to and from the east
- Modifying the 40th Street TI by eliminating the westbound off-ramp and the existing eastbound loop on-ramp, relocating realigning the 40th Street eastbound off-ramp, and relocating the westbound off-ramp to the westbound C-D road
- Widening the westbound I-10 to eastbound US 60 ramp
- Relocating the existing westbound US 60 to westbound I-10 ramp to accommodate the westbound C-D road and constructing a new ramp providing access to the westbound C-D road from westbound US 60
- Constructing new pedestrian bridges across I-10 at Alameda Drive and Western Canal
- Widening Guadalupe Road bridge to accommodate a trail
- Installing Dynamic Message Signs along the freeway within the construction limits

Without construction of the Selected Alternative, the I-10 in the study area would suffer from degraded traffic conditions, travel delays, and challenging mobility for moving goods, services, and people through the study area. The Selected Alternative would address the needs in the study area by:

- Maintaining the current functionality and mobility of the I-10 corridor
- Providing regional mobility and access for economic centers
- Accommodating current and planned system linkages for bus services using I-10

II. ENVIRONMENTAL COMMITMENTS

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:

- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Uniform Relocation Act Amendments of 1987
- ADOT's Right of Way Procedures Manual
- Title VI of the Civil Rights Act of 1964
- ADOT's Public Involvement Plan
- ADOT's Clean Water Act Section 404/401 Guidance Manual
- ADOT's Temporary Traffic Control Design Guidelines
- ADOT's Erosion and Pollution Control Manual
- ADOT's 2017 Noise Abatement Requirements
- ADOT's Standard Specifications for Road and Bridge Construction
- SAF-6.01 Asbestos Management Policy
- ADOT's Roadside Vegetation Management Guidelines

III. MITIGATION MEASURES

The following mitigation measures are not subject to change without prior written approval from Arizona Department of Transportation (ADOT) Environmental Planning. These mitigation measures will be updated as required in the final design stages of the project. Global changes made to the mitigation measures from the Draft EA for the Selected Alternative include changing “would” to “will” for ADOT responsibilities. In addition, all references to “should” in connection with the Contractor’s responsibilities have been changed to “shall."

ADOT Design Responsibilities

- If a Section 404 permit is required, ADOT Design Engineer will ensure water impacts are mitigated prior to construction within Waters of the U.S. as required by the US. Army Corps of Engineers; this may include compensatory mitigation (in-lieu fees) by the contractor.
- Floodplain impacts will be coordinated with the Maricopa County Flood Control District.

ADOT District Responsibility

- If any active bird nests cannot be avoided by vegetation clearing or construction activities, the Engineer will contact the Arizona Department of Transportation Environmental Planning biologist (602.712.7134 or 602.712.7767) to evaluate the situation.

Contractor Responsibilities

- The Contractor shall contact the ADOT Environmental Planning Historic Preservation Team (602.712.4232 or 602.712.7767) 10 (ten) business days prior to construction to ensure that the terms and stipulations of Attachment Six (6) of the Programmatic Agreement have been fulfilled.
- The Contractor shall contact the ADOT Environmental Planning Historic Preservation Team (602.712.4232 or 602.712.7767) at least 10 (ten) business days prior to the start of ground-disturbing activities to arrange for qualified personnel to monitor and be present during construction.
- Where feasible, the noise barriers required as mitigation measures shall be constructed as early as possible in the construction phasing to shield adjacent properties from construction-related noise.
- Prior to construction, the Contractor shall prepare construction noise assessment memo for specific noise sensitive areas identified in the noise technical analysis that will

include a description of the planned construction methods and operations, any basic measures that have been identified to reduce construction noise impacts, and a process to address public comments during construction.

- If a Section 404 permit is required, the contractor shall ensure water impacts are mitigated prior to construction within Waters of the U.S. as required by the US. Army Corps of Engineers; this may include compensatory mitigation (in-lieu fees) by the contractor.
- The contractor shall comply with all terms and conditions of the Clean Water Act Section 404/401 permit and certification.
- If vegetation clearing would occur during the migratory bird breeding season (March 1–August 31), the contractor shall avoid any active bird nests. If active nests cannot be avoided, the contractor will notify the Engineer to evaluate the situation. During the non-breeding season (September 1–February 28), vegetation removal is not subject to this restriction.
- Prior to construction, all personnel who will be on-site, including, but not limited to, contractors, contractor's employees, supervisors, inspectors, and subcontractors, shall review the Arizona Department of Transportation Environmental Planning "Western Burrowing Owl Awareness" flyer.
- If any burrowing owls or active burrows are identified, the contractor shall notify the Engineer immediately. No construction activities will take place within 100 feet of any active burrow.
- If the Engineer in cooperation with the Environmental Planning Biologist determines that burrowing owls cannot be avoided, the contractor shall employ a qualified biologist holding a permit from the US Fish and Wildlife Service to relocate burrowing owls from the project area, as appropriate.
- The contractor shall not cause injury or death to swallows, including eggs and nestlings. If work will occur that will directly impact nesting swallows from February 1 to August 31 of any calendar year. The contractor shall adhere to the following:
  - The contractor shall completely remove all existing swallow nests within 100 feet of work areas after August 31 but prior to February 1 to prevent swallows from reusing those nests.
  - The contractor shall implement exclusionary measures to prevent swallows from building new nests within areas directly impacted by construction activities. Exclusionary measures shall be implemented in all areas where swallows are likely to nest and may include (a) continually removing nesting materials during early nest

construction when eggs or nestlings are not present, (b) installing deterrent spike strips, and/or (c) installing polytetrafluoroethylene (Teflon) sheeting.

  - The contractor shall not disturb any active swallow nests (completed or partially completed nests that contain eggs or nestlings). If any active nest is discovered within 100 feet of construction activities, work shall stop, and the Arizona Department of Transportation Environmental Planning biologist shall be contacted (602.712.7134 or 602.341.9331) to evaluate the potential for disturbance of nests.
  - The contractor shall monitor and maintain the effectiveness of exclusionary measures daily. Spike strips shall be maintained such that they remain in place. Teflon sheeting shall be reapplied as often as necessary to remain effective.

- If swallow exclusion measures fail, the contractor shall:
  - Inform the Engineer as soon as swallow nest building occurs and determine whether the area can be avoided until nests are no longer active.
  - Hire a qualified biologist to survey bird nests within 100 feet of construction areas and provide a report to the Environmental Planning biologist (602.712.7134 or 602.341.9331) with the number of affected nests for each species of bird. The resume for the selected biologist shall be approved by the Engineer in coordination with the ADOT Biologist prior to conducting the survey.
  - Determine whether to wait for the nestlings to fledge or apply for a US Fish and Wildlife Service Migratory Bird Treaty Act Special Purpose permit from the USFWS Regional office in Albuquerque, New Mexico.
  - If the permit is approved, hire a wildlife rehabilitator licensed by USFWS to relocate and rehabilitate all affected eggs or nestlings.
  - Any costs incurred as a result of delays related to failure of swallow exclusion measures, including waiting until the nests are not active and/or time required to obtain a Migratory Bird Treaty Act relocation permit and the eggs or nestlings to be relocated from the work area shall be the contractor's responsibility.
- The contractor shall remove all swallow exclusionary measures after project completion to the satisfaction of the Engineer.
- 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.

- No pavement marking obliterations shall occur until the existing pavement markings are tested for lead based paint, and if present, a Lead-Based Paint Removal and Abatement Plan is approved by the ADOT Environmental Planning hazardous materials coordinator and implemented.

IV. ERRATA FROM DRAFT ENVIRONMENTAL ASSESSMENT

This section contains additions or changes to the text presented in the Draft EA to revise, clarify, further discuss, or make corrections based on public and agency comments. This document should be used in conjunction with the Draft EA, and the changes as stated below add to or supersede what was included in the published Draft EA.

Page numbers and section titles of the original text in the Draft EA are provided for the changes. Deleted text is identified with strikethrough (~~strikethrough~~) and new or revised text appears in red italics (*italics*). Where applicable, the entire paragraph from the Draft EA has been included to provide context for the changes.

The following global changes apply to all text in the Draft EA and are not presented in the errata:

- "Preferred Alternative" is changed to "Selected Alternative."
- References to "would" regarding the project and/or Selected Alternative are changed to "will."
- Revised mitigation measures are provided in Section III. Mitigation Measures, of this document.

No revisions, clarifications, or corrections were required for the following sections of the Draft EA, other than the global changes noted above:

- Chapter I. Introduction
- Chapter II. Purpose and Need
- Chapter V. Public Involvement/Project Coordination
- Chapter VI. Bibliography

Preferred Alternative

The following has been updated in Section III.B.2. Preferred Alternative on Page 23 of the Draft EA.

ADOT has taken the alternatives that were developed and screened in prior transportation studies, incorporated input from the public and stakeholder outreach undertaken in those studies as well as input from the current study, and in collaboration with MAG and local agencies, built on these findings to arrive at a *Selected* ~~Preferred~~ Alternative for this ~~Draft~~ EA. Construction of the *Selected* ~~Preferred~~ Alternative will ~~would~~ consist of the following major elements:

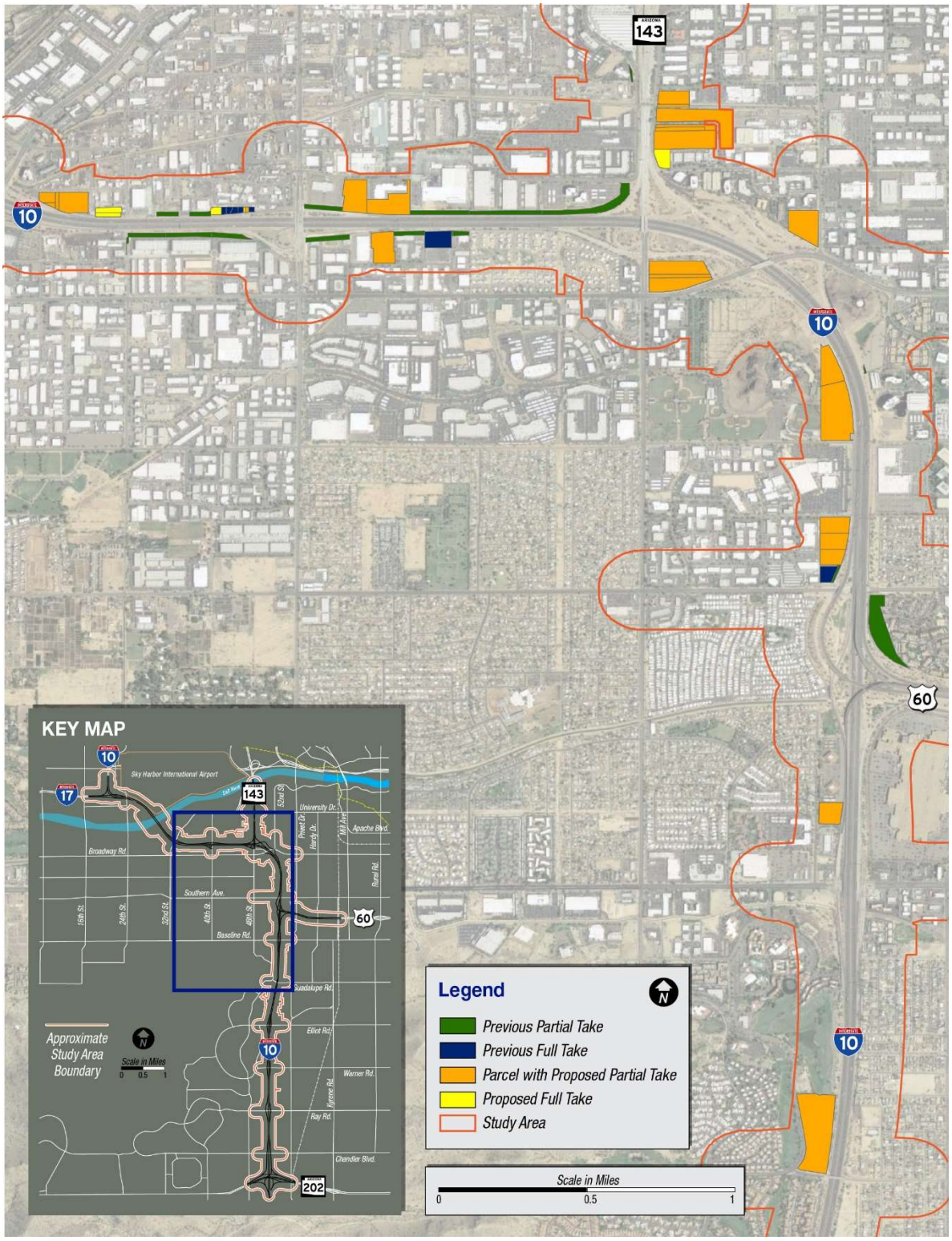
- Widening to the outside and restriping I-10 within the study limits
- Widening the existing Salt River Bridge to accommodate seven GPLs and two HOV lanes between 24th Street and 32nd Street
- Flaring the west end of the *Salt River* Bridge to accommodate proposed future reconstruction of the I-10/I-17 system interchange
- Reconstructing the SR 143, Broadway Road, and 48th Street interchanges and connect*ing* them to new C-D roads
- Constructing a direct HOV connection between SR 143 and I-10 to and from the east
- Modifying the 40th Street TI by eliminating ~~the westbound off-ramp and~~ the existing eastbound loop on-ramp, ~~relocating~~ *realigning* the 40th Street eastbound off-ramp *and relocating the westbound off-ramp to the westbound C-D road*
- Widening the westbound I-10 to eastbound US 60 ramp
- Relocating the existing westbound US 60 to westbound I-10 ramp to accommodate the westbound C-D road and construct*ing* a new ramp providing access to the westbound C-D road from westbound US 60
- *Constructing new pedestrian bridges across I-10 at Alameda Drive and Western Canal*
- *Widening Guadalupe Road bridge to accommodate a trail*
- Installing Dynamic Message Signs along the freeway within the construction limits

Land Ownership, Jurisdiction, and Land Use

The following has been updated in Section IV.B.2 Environmental Consequences Preferred Alternative on Page 34 of the Draft EA.

At this schematic level of design, there are *15* ~~20~~ partial takes and *5*~~4~~ full acquisitions anticipated with construction of the Preferred Alternative (approximately ~~6.8~~ *8* acres of land acquisition) (**Figure IV-2**). *The numbers have been updated as a result of design refinements and are subject to change through final design.* The anticipated partial takes are in various places along both sides of I-10 between 32nd Street and Guadalupe Road and include parking lots, billboard sites, storage unit, and other commercial and industrial land use. The anticipated full takes are concentrated on the north side of I-10 between 32nd Street and 40th Street. These takes are mostly commercial or industrial facilities and do not include residential properties.

The following figure replaces Figure IV-2. Previous and Potential Right-of-Way Acquisitions in the study area on Page 35 of the Draft EA.



Note: The proposed full and partial takes have been updated on this map.

Traffic and Transportation

The following has been updated in Section IV.G.3 Traffic Impacts During Construction on Page 87 of the Draft EA.

Construction activities under the *Selected* ~~Preferred~~ Alternative ~~would~~ *will* result in some traffic disruption on I-10 and temporary bridge closures during off-peak travel times. *All existing lanes of I-10 will be required to remain open to traffic during peak hours, with a reduction in lanes only allowed during nights and weekends. Full freeway closures can only happen over the weekend and only one direction of travel can be closed at a time and will be communicated to the public in advance with proper detour routes in place.*

Closures are not allowed to be more than five miles long with detours kept to the regional freeway system instead of local streets. ADOT will implement requirements for the contractor to re-open the regional freeway system on time, which will help ensure that peak hour travel is not impacted by lane reductions or closures. Additionally, standard traffic control measures by ADOT as included in ADOT's Temporary Traffic Control Design Guidelines would be followed during construction. Construction could also affect local arterial streets in the study area. In addition to temporary traffic disruptions (closures and detours), construction traffic would be noticeable on area roadways and could occasionally contribute to localized congestion. *However, to minimize traffic disruptions to local arterials, MAG is conducting origin/destination studies and working with the local jurisdictions to improve ITS and traffic signal infrastructure and to optimize traffic signal timings. Advance notice will also be provided to the public to inform them of closures and detours, so they can plan their routes accordingly.*

Air Quality

The following tables replace Section IV.H. Air Quality Table IV-22 and Table IV-23 on Page 92 of the Draft EA.

Table IV-22. Predicted Peak-Hour CO Concentrations (ppm)

Intersection	2018		2040			
	Existing		No-Build Alternative		~~Preferred~~ *Selected* Alternative	
	AM	PM	AM	PM	AM	PM
Baseline Road and I-10	~~3.2~~ *3.1*	~~3.2~~ *3.5*	2.3	2.4	2.4	~~2.3~~ *2.4*
Elliot Road and I-10	2.8	~~3.0~~ *2.9*	~~2.4~~ *2.3*	~~2.4~~ *2.2*	~~2.3~~ *2.2*	~~2.5~~ *2.3*
Broadway Road and I-10 WB/52nd Street	~~2.8~~ *3.1*	~~3.2~~ *3.0*	~~2.2~~ *2.3*	2.4	~~2.3~~ *2.2*	~~2.2~~ *2.1*
1-hour CO standard	35	35	35	35	35	35

Concentrations = modeled results + 1-hour CO background
1-hour CO background = 2.0 ppm

Abbreviations: AM = morning *peak*; PM = evening *peak*; ppm = parts per million

Table IV-23. Predicted Worst-Case Eight-Hour CO Concentrations (ppm)

Intersection	2018		2040			
	Existing		No-Build Alternative		~~Preferred~~ *Selected* Alternative	
	AM	PM	AM	PM	AM	PM
Baseline Road and I-10	~~2.54~~*2.47*	~~2.54~~ *2.75*	1.91	1.98	1.98	~~1.91~~ *1.98*
Elliot Road and I-10	2.26	~~2.40~~ *2.23*	~~1.98~~ *1.91*	~~1.98~~ *1.84*	~~1.91~~ *1.84*	~~2.05~~ *1.91*
Broadway Road and I-10 WB/52nd Street	~~2.26~~*2.47*	~~2.54~~ *2.40*	~~1.84~~ *1.91*	1.98	~~1.91~~ *1.84*	~~1.84~~ *1.77*
8-hour CO standard	9	9	9	9	9	9

Concentrations = (modeled results x persistence factor [0.7]) + 8-hour CO background
8-hour CO background = 1.7 ppm

Abbreviations: AM = morning; PM = evening; ppm = parts per million

The following has been updated in Section IV.H.5 Transportation Conformity on Page 97 of the Draft EA.

The project has met conformity requirements because it is included in conforming regional plans, and it is not expected to cause or contribute to an exceedance of the NAAQS. *Conformity approval was completed by FHWA and is included as part of the Final Air Quality Technical Report available in Appendix D of this report and on the project website at: https://azdot.gov/node/15475.*

The following has been updated in Section IV.H.7 Conclusion on Page 98 of the Draft EA.

Conclusion

As indicated in the Environmental Consequences subsection, the Selected Alternative MSAT emissions would be 0 percent to 3 percent lower than No-Build Alternative emissions in the year 2040, and the GHG emissions would be approximately 3 percent lower than No-Build emissions in 2040. These readings indicate that the ~~The Preferred~~ *Selected* Alternative would not be expected to cause a new violation or contribution to an existing violation of the NAAQS. The ~~Preferred~~ *Selected* Alternative would meet all transportation conformity requirements because it is included in conforming regional plans, and it is not expected to cause or contribute to an exceedance of the NAAQS.

Noise

The following figure replaces Figure IV-13. Existing and Proposed Noise Barriers on Page 105 of the Draft EA.

Note: The location of NB-6 has been moved from the right-of-way line to the edge of the pavement to minimize construction impacts to the adjacent properties and avoid potential utility conflicts.

Utilities

The following has been updated in Section IV.J.2 Environmental Consequences, Preferred Alternative on Page 108 and 109 of the Draft EA.

The Preferred Alternative has potential horizontal and vertical conflicts with existing utilities. These impacts are summarized as follows:

- SRP ~~overhead~~ power
  - *69kV and* 12kV at 38th Street
  - 12kV east of 40th Street
  - 69kV and 12kV west of 48th Street
  - Double circuit 69kV and 12kV at Tempe Drain
  - ~~12kV at Broadway Road and 48th Street~~
  - 12kV at Alameda
  - *12 kV at Fairmont Drive*
  - Double circuit 69kV at I-10/US 60 System TI
- ~~SRP underground power~~
- SRP Irrigation
  - 30-inch reinforced concrete pipe west of 32nd Street
  - 30-inch reinforced concrete pipe west of 40th Street
  - 48th Street Laterals
  - 24-inch rubber gasketed reinforced concrete pipe from Fairmont to Southern
  - ~~Western Canal~~

Drainage and Floodplain Consideration

The following has been updated in Section IV.L.1 Existing Conditions on Page 118 of the Draft EA.

While FEMA continues to update FIRMs with the best available hydrology and hydraulics information, the floodplains delineated on the most recent FIRMs are considered the effective floodplains. The Preferred Alternative crosses three regulatory watercourses and their effective floodplains: The Salt River, Western Canal, and Highline Canal (**Figure IV-18**). As shown in **Figure IV-18**, the study area is covered by the following effective FIRMs:

- 04013C2220L
- 04013C2240L
- 04013C2705L
- *04013C2715L*

Section 404, 401, and 402 of the Clean Water Act and Arizona PDES

The following has been updated in Section IV.M. Section 404, 401, and 402 of the Clean Water Act and Arizona PDES on Page 122 of the Draft EA.

The USACE issued a *Preliminary* JD for the study area in June 2008 that identified the following jurisdictional Waters:

- Salt River
- Tempe Drain
- 12th Street Ditch
- 16th Street Outfall

The 2008 JD expired in 2013 and the revised scope of work no longer includes work at the 12th Street ditch and 16th Street outfall. Therefore, a reevaluation and delineation of the revised study area was completed in 2018, ~~*and*~~ 2019, and 2020. The Corps issued a Preliminary JD in June 2019 for the study area. The Preliminary JD included all potential Waters, including wetlands, within the study area. *A revised Preliminary JD was issued by the Corps in January 2020 to include an additional portion of the Tempe Drain within the study area that crosses SR 143.*

The *three* ~~most common~~ types of Section 404 permits for transportation projects *within Arizona* are:

- ~~(1)~~ Nationwide Permit 14 (Linear Transportation Projects), which authorizes projects with ~~less than~~ *up to* 0.5 acre of permanent loss of Waters with no impacts to special aquatic areas such as wetlands~~,~~. ~~a~~ Under *this permit, a* pre-construction notification (PCN) is required for Waters impacts that exceed *0*.10 acre or that result *in impacts to a perennial or intermittent stream (Regional Condition 4a). A PCN is also required if the project is located within 1600 meters (or 1 mile) upstream and/or 800 meters (1/2 mile) downstream of designated Outstanding Arizona Waters or a 303(d)-impaired surface water, and on tributaries to Outstanding Arizona Waters/impaired surface waters within 1600 meters of the Outstanding Arizona Water/impaired surface water (Regional Condition 4f). PCNs are also required if the activity in Waters may affect an Endangered Species Act-listed species or may affect a property listed or potentially eligible for listing under the National Historic Preservation Act*; ~~in a discharge into special aquatic sites, including wetlands (compensatory mitigation is required for wetland losses that exceed .10 acre) and~~

- ~~(2) Individual permits, which are required for projects that affect more than 0.51 acre of Waters or cause impacts on jurisdictional wetlands exceeding 0.025 acre. 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.~~

- The Regional General Permit 96 (RGP No. 96), which applies to routine ADOT activities that disturb Arizona Waters occurring within ADOT right-of-way or easements that are located on non-tribal lands. This permit can also be used for local agency projects funded by FHWA that are bid and managed by ADOT. Examples of routine activities include such actions as maintenance of structures and sediment/debris removal from culverts. *The RGP No. 96 permit has water impacts threshold requirements and conditions (e.g., impacts to aquatics, ESA species, and cultural/historic) for different levels of (Corps) notification; these levels of notification include non-notification, concurrence notification, and full pre-construction notification. The RGP No. 96 permit (full pre-construction notification) may be applied to ADOT project with water impacts of 0.5 acre but no more than 1 acre with up to 0.025 acres of water impacts to special aquatic sites (wetlands).*

- *~~(2)~~ Individual permits are required for projects that do not meet the threshold/conditions for the RGP No. 96 or Nationwide Permit. 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.*

If an individual permit is required*, the Corps may only issue a permit for an activity that it determines to be the Least Environmentally Damaging Practicable Alternative (LEDPA), as defined at 33 CFR 230.10a. Furthermore, the activity must also comply with 33 CFR 230.10(b-c) (The 404(b)1 Guidelines). To ensure a permitted action complies with the 404(b)1 Guidelines, the Corps may require mitigation for any discharge which may result in unavoidable impacts to Waters of the U.S (33 CFR 332.1(c)3). Although mitigating impacts greater than 0.025 acre in wetlands is a standard procedure, the Corps frequently requires mitigating impacts that are more than minimal or result in a decline in an aquatic resource's functions and services.* ~~the permit requires that the documentation must describe that the "Least Environmentally Damaging Practicable Alternative" (LEDPA) has not been eliminated from consideration for the project preferred alternative. It is the responsibility of the applicant to demonstrate to the Corps that the LEDPA has not been screened out during the decision-making process. Therefore, factors such as aquatic resource impacts need to be considered during the alternative screening process.~~

The following has been updated in Section IV.M.1. Regulatory Setting on Page 124 of the Draft EA.

The Waters of the United States present within the study area include a natural ephemeral channel, canal, and human induced wetlands. The following regulatory guidance reviews, desktop studies, and field studies were completed to identify Waters within the study area:

- *Regional Supplement to the Corps of Engineers Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008b)
- *33 CFR §§ 328 and 329, Definition of Waters of the United States and Navigable Waters*
- *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008a)
- *Corps of Engineers Wetland Delineation Manual* (USACE 1987)
- ~~June~~ 2008, *2019, and 2020* USACE *Preliminary* JD*s* completed for the study area
- Wetland and other Waters of the United States field delineation completed in 2018 and 2019
- Review of U.S. Fish and Wildlife Service National Wetland Inventory Mapping
- Review of U.S. Geological Survey 7.5' topographic quadrangles
- Review of study area aerial photographs

The following has been updated in Section IV.M.3. Canal on Page 124 of the Draft EA.

The Tempe Drain is a riprap and concrete-lined canal that has a direct connection to the Salt River. Flows in the Tempe Canal are the result of stormwater runoff and the release of treated effluent water. The USACE determined the Tempe Drain ~~is a~~ *may be a* jurisdictional Water in the 2008, ~~and~~ 2019*, and 2020* USACE *Preliminary* JDs completed for the project.

The following has been updated in Section IV.M.5. Existing on Page 125 of the Draft EA.

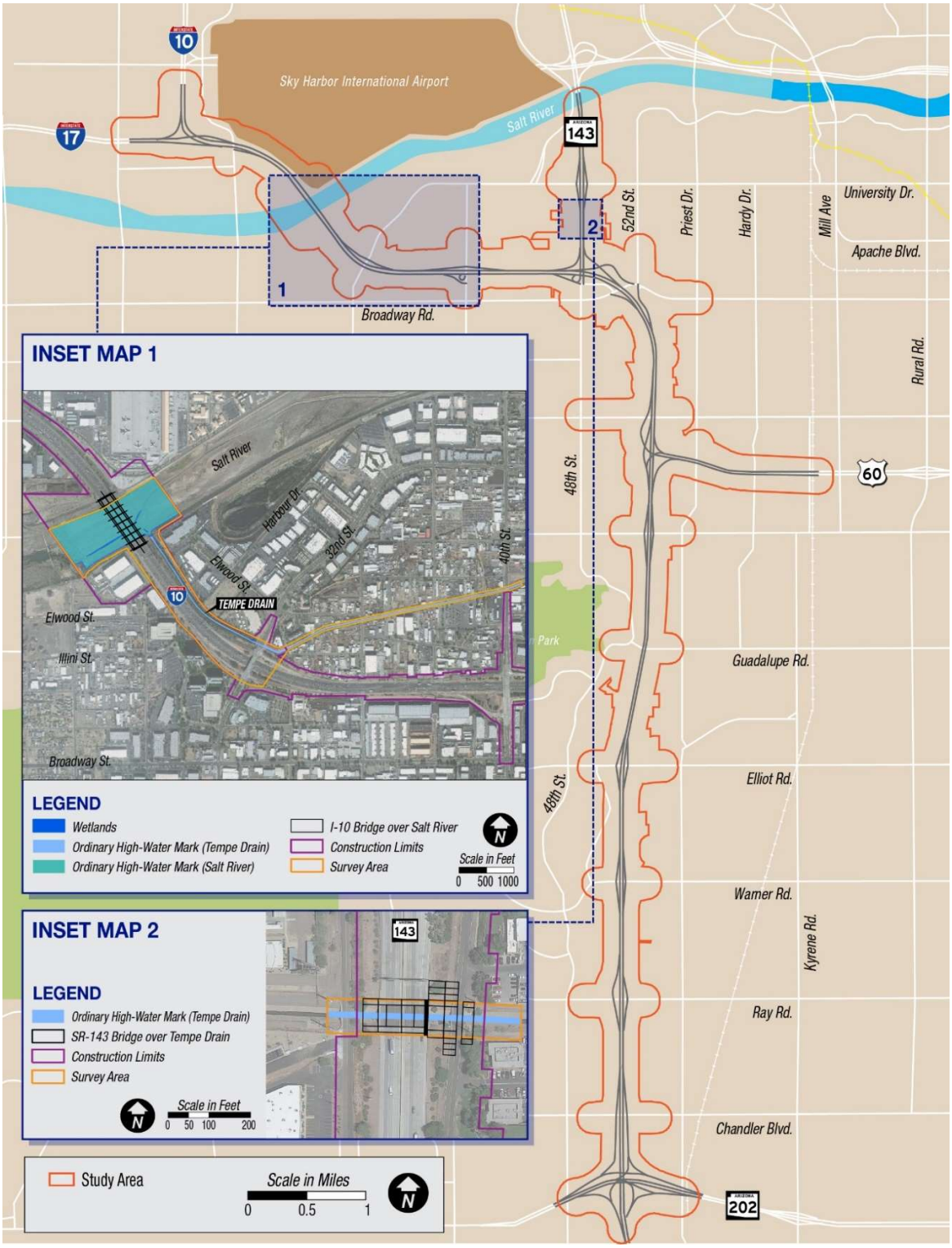
The Salt River is an ephemeral channel that contains small wetland areas supported by the low-flow channel *and is located on the western end of the study area. I-10 bridge crosses over Salt River in this area*. Tempe Drain is a man-made drainage that is riprap and concrete-lined within the study area. The 3,550 feet of riprap is installed on the segment of the canal starting from its confluence with the Salt River *along I-10*. This segment of the feature supports wetlands

because of the presence of hydrology that supports the development of hydrophytic vegetation. *It also crosses under SR 143 where it is concrete lined with no wetlands present.* The low-flow channel present in the drain supports surface water that flows into the Salt River. **Figure IV-19** shows the location of the Waters in the study area.

The following has been updated in Section IV.M.6. Methodology on Page 125 of the Draft EA.

The 2018 and 2019 wetland delineation*s* were completed per the 1987 *Corps of Engineers Wetland Delineation Manual* (USACE 1987), 2008 *Regional Supplement to the Corps Wetland Delineation Manual: Arid West Region* (USACE 2008b), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008a). The delineated wetlands were atypical, as they were established because of the urban flows that provide hydrology for the Tempe Drain and the low-flow channel in the Salt River. Wetlands were delineated at three locations within the study area. The locations included two sites along the Salt River and a segment of the Tempe Drain *from University Drive/E 32nd Street northwest to the discharge point into the Salt River*. At each of these locations, the presence of wetlands was determined based on a three-parameter approach that documented the presence of hydrophytic vegetation, hydric soils, and hydrology. Each data point included a soil core sample used to determine the presence of hydric soil indicators. While soils were sampled at each of these sites, they could not be used as a wetland indicator because they were alluvial and did not exhibit hydric indicators. Vegetation was sampled within a 2-meter-radius plot at each location. The plants in each plot were identified in the State of Arizona 2016 Wetland Plant List to determine their wetland indicator status.

The following figure replaces Figure IV-19. Waters of the United States within the study area on Page 126 of the Draft EA.



Note: The updated figure includes the area for 2020 Preliminary JD and the area of survey.

The following has been updated in Section IV.M.6. Methodology on Page 127 of the Draft EA.

The Tempe Drain was also surveyed from University Drive north to the discharge point into the Salt River. Along this segment of the feature, the low-flow channel is 16-to-20-feet wide and surface water is present. Small wetland areas occur where riprap is present. These sites are characterized by the presence of wetland plants such as common reed, umbrella sedge (*Fuirena* sp.), and some scattered cattail (*Typha latifolia*). Some of the more developed wetland areas were associated with the culverts where sediment accumulates and provide the conditions necessary for the establishment of hydrophytic vegetation.

Tempe Drain also crosses SR 143 south of the Salt River. This segment of the feature is concrete-lined and has no wetland areas. **Table IV-33** identifies the extent of jurisdictional Waters that were delineated within the study area *including the area of Tempe Drain crossing SR 143*.

Table IV-33. Waters of the United States Present in the ~~Study~~ *Survey* Area

Drainage	Waters Type	Acres
Salt River	Open Water	38.94
	Wetland	0.20
Tempe Drain	Open Water *(Including the area crossing SR 143)*	~~4.70~~*3.87*
	Wetland	0.07
Total Open Waters		~~43.64~~*42.81*
Total Wetlands		0.27
Total Waters		~~43.91~~*43.08*

The following has been updated in Section IV.M.7. Environmental Consequences Preferred Alternative on Page 128 of the Draft EA.

The ~~Preferred~~ *Selected* Alternative ~~would~~ *will* result in direct ~~temporary and~~ permanent impacts to Waters. These impacts ~~would~~ *will* be the result of the placement of I-10 bridge piers within the Salt River channel and *currently evaluating design options for* ~~the installation of the concrete lining within the~~ Tempe Drain *to accommodate the 100-year water surface elevation of the existing and future flows*.

The placement of the I-10 bridge piers within the Salt River ~~would~~ *will* result in an estimated 0.02 acre of Waters impact. These are the only direct project impacts to the Salt River. No direct impacts to wetlands associated with the Salt River ~~would~~ *are anticipated to* occur from the ~~Preferred~~ Selected Alternative *at this stage in design*. Some minor temporary impacts to existing I-10 bridge structure protection ~~would~~ *will* occur during construction. These impacts

~~would~~ *will* be the result of the movement of construction equipment and supplies during the bridge expansion. Impacts to the structure protection ~~would~~ *will* be replaced in-kind and ~~would~~ *will* not result in new disturbances to Waters.

Direct impacts to the Tempe Drain *are undetermined at this point as ADOT is evaluating potential options to address the 100-year flows. These options include the following:*

- *Removing the riprap and lining the drain with concrete*
- *Installing a concrete pipe to capture the additional flow*
- *Managing and maintaining the vegetation within and adjacent to the existing riprap drain, which may require minor grading to provide access for maintenance crews*
- *Managing and maintaining the vegetation and Installing a concrete low-flow valley gutter*

~~would result from the conversion of the 3,550 feet of riprap lining to a concrete channel. These impacts are estimated to be 0.75 acre of permanent direct impact to Waters where no riprap is currently installed. Direct permanent wetland impacts along the drain estimated to be 0.07 acre. The conversion to a concrete-lined channel would result in the inability of wetlands to be established along the low-flow channel. Temporary impacts would occur to Waters where the riprap is being removed and replaced with concrete lining. The estimated impacts would total 6.51 acres.~~

No direct impacts to the Tempe Drain will result from the SR 143 roadway improvements. At this location, four new structures will span the canal. Since the structures will be installed outside of the concrete-lined canal, no impacts will occur to the feature.

The following table replaces Table IV-34. Estimated Impacts to the Salt River and Tempe Drain on Page 129 of the Draft EA.

Table IV-34. Estimated Impacts to the Salt River and Tempe Drain

Drainage	Waters Impacts	Wetland Impacts
Salt River	0.02 acre (permanent)	0
Tempe Drain	~~0.75 acre (permanent)~~ *To be determined during final design*	~~0.07 acre (permanent)~~ *To be determined during final design*
	~~6.51 acres (temporary)~~ *To be determined during final design*	
~~Total~~	~~Permanent: 0.77 acre~~	~~0.07 acre~~
	~~Temporary: 6.51~~	

The following has been updated in Section IV.M.9. Conclusion on Page 129 of the Draft EA.

Impacts associated with the ~~Preferred~~ *Selected* Alternative *to Salt River will* include placement of bridge piers and fill into Waters. *Additionally, impacts to Tempe Drain will include one of the potential design options for the Tempe Drain and will be determined prior to construction.*

~~The preliminary design used for the impact analysis presented in this section indicates that a Section 404 Individual Permit and Section 401 Water Quality Certification would be needed for the project~~ If a~~n~~ *Section 404* individual permit is required ~~as anticipated~~, it would require discussion on whether this project's ~~preferred~~ Alternative meets the criteria for the LEDPA.*ADOT will continue to coordinate with U.S. Army Corps of Engineers to determine the best action moving forward.* ~~Also, since the preliminary design impacts indicate that there will be permanent wetland impacts as a result of this project, compensatory mitigation would be required~~. As the project progresses into final design, impacts to Waters ~~would~~ *will* be further evaluated to determine final impacts as part of the Section 404 permit process.

Biological Resources

The following has been updated in Section IV.N.1 Existing Conditions, Special Status Species on Page 133 of the Draft EA.

The study area provides nesting and roosting habitat for avian species protected under the Migratory Bird Treaty Act. The 2015 biological surveys did not observe any swallow nests in the southern segment of the study area. Since the field review, the study area has been expanded to include the I-10 Salt River Bridge. *A biological site visit was conducted by ADOT on January 2020 at the Salt River Bridge intersection I-10, at approximately milepost 151. No active swallows' nests were observed under the bridge; however, several inactive swallows' nests were attached to bridge piers. It was determined bridge widening construction activities would have the potential to impact nesting swallows and may result in nest failure or abandonment. Therefore, additional mitigation measures have been added to prevent impacts to nesting swallows during construction (See Section III. Mitigation Measures).*

~~This bridge has not been surveyed for the presence of swallow nests. No other avian nest surveys have been completed within the study area. The mitigation section provides measures to ensure the taking of migratory bird nests would be avoided during construction.~~

The following has been updated in Section IV.N.2 Environmental Consequences, Preferred Alternative, Riparian Area and Wetlands on Page 135 of the Draft EA.

No *direct* impacts to Salt River riparian and wetland areas would occur from the ~~Preferred~~ *Selected* Alternative. However, wetland and riparian areas within the segment of the Tempe Drain *could potentially* ~~that would be converted to concrete lining would~~ be permanently impacted. ~~This area of permanent impact includes the canal from the confluence with the Salt River and upstream approximately 3,550 feet. Section IV.M.7 identifies the wetlands and other Waters of the United States that would be temporarily and permanently impacted in the Salt River and Tempe Drain from the Preferred Alternative.~~ The ~~loss~~ *change in* vegetation along the Tempe Drain would result in a minor impact to wildlife and would displace avian species that are likely using the vegetation for nesting and foraging.

The following has been updated in Section IV.N.4 Conclusion on Page 137 of the Draft EA.

The ~~Preferred~~ *Selected* Alternative would result in minor impacts to biological resources in the study area. *Avian and small wildlife species could potentially be impacted due to changes to the vegetation in the vicinity of the Tempe Drain.* ~~conversion of the Tempe Drain riprap to concrete lining would remove wetlands and riparian vegetation that is occupied by avian and small wildlife species. Native plants also occur in this segment of the canal and would need to be~~

~~relocated prior to initiating land-clearing activities.~~ Overall, other disturbances to biological resources would occur primarily during construction and would result in short-term temporary disturbance to wildlife species in the study area.

Cumulative Impacts

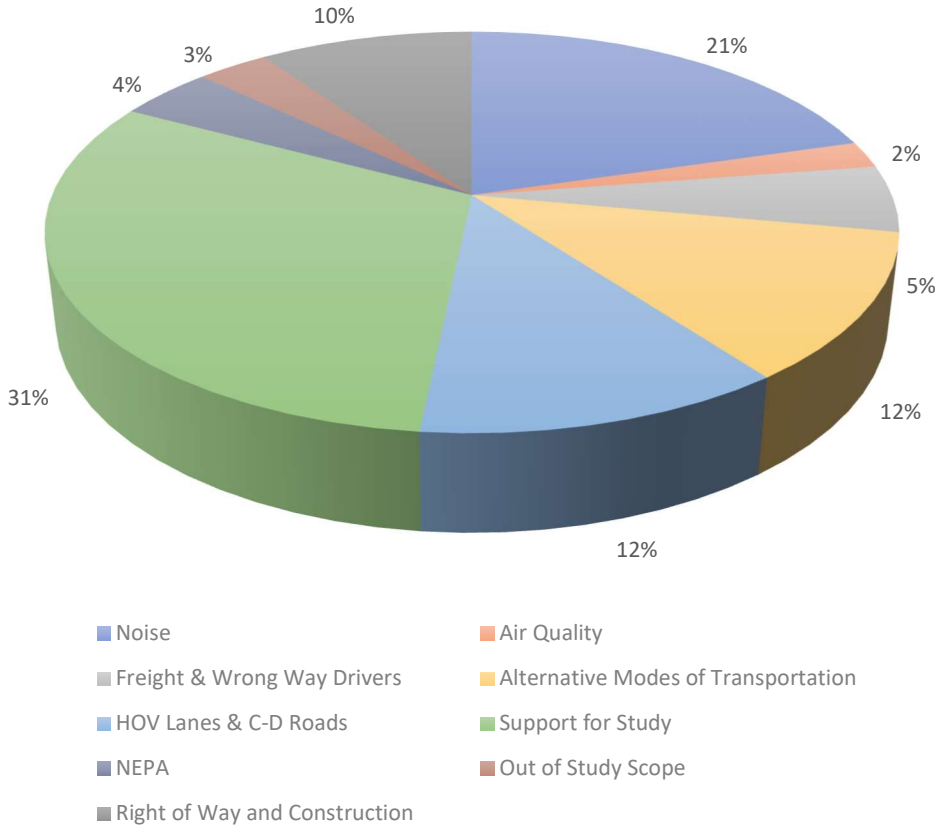
The following has been updated in Section IV.Q.2 Environmental Consequences, Biological Resources on Page 151 of the Draft EA.

Biological resources have been impacted over time, with the study area study area being almost completely developed. Construction of commercial, residential, and industrial developments and transportation features limited altered and limited almost habitats that existed previously. The ~~Preferred~~ *Selected* Alternative would only minor impacts to burrowing owls~~ and would have minor indirect impacts through the removal of 0.07 acres of wetland in the Tempe Drain~~. In the context of past, current, and reasonably foreseeable actions, this represents only a minor negative permanent cumulative impact.

V. COMMENTS

Public comments received on the Draft EA throughout the public comment period from October 4, 2019, to November 18, 2019, and at the public hearing on October 24, 2019, are included in Appendix A. A total of 92 comments were received through the online survey, comment form, phone calls, mail, email, and verbally at the public hearing. Overall, the public comments received showed support for the Selected Alternative and a need to address growing traffic congestion concerns in the study area (see **Figure 1**). The public also expressed concerns about the impacts of noise and light as well as interest in the proposed HOV lane and C-D road configurations. See Appendix A for ADOT's response to the comments received and Appendix B for more information on the public hearing.

Figure 1. All Public Comments by Category



A few agency comments were also received during the comment period, which are also captured and responded to. The agency comments that were specific to the Air Quality Technical Report are included in Appendix D, Final Air Quality Technical Report.