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CORPS OF ENGINEERS, LOS ANGELES DISTRICT
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LOS ANGELES, CALIFORNIA 90017-3401**

November 9, 2017

RECORD OF DECISION

CORPS FILE NO.: SPL-2002-00055

APPLICANT: Arizona Department of Transportation

PROPOSED PROJECT NAME: South Mountain Freeway State Route 202 Loop, Interstate-10 (Maricopa Freeway) to Interstate-10 (Papago Freeway)

This is the United States Army Corps of Engineers' ("Corps") Record of Decision ("ROD") concerning the Arizona Department of Transportation's ("ADOT") application for a Department of the Army ("DA") permit to discharge fill material into waters of the United States ("WUS") pursuant to Section 404 of the Clean Water Act ("CWA") associated with the South Mountain Freeway State Route 202 Loop (SR 202L), Interstate 10 (I-10) (Maricopa Freeway) – I-10 (Papago Freeway) ("SMF"). This ROD documents my decision, along with the rationale for the decision. My decision is based on a review of the Environmental Impact Statement ("EIS"), subsequent reevaluations, Supplemental Impact Report ("SIR") (Appendix A of this ROD), CWA Section 404(b)(1) Guidelines Analysis (Appendix B of this ROD), review and consideration of public and resource agency comments, and the administrative record.

I. DECISION

I find that the proposed discharge of fill material into WUS, with the inclusion of special conditions, complies with the CWA Section 404(b)(1) Guidelines ("Guidelines") and is not contrary to the public interest. Therefore, pursuant to the authority specified in 33 C.F.R. 325.8(b), and in accordance with the record and applicable regulations, I find that the proposed discharge of fill material into WUS shall be permitted under Section 404 of the CWA.

II. INTRODUCTION

A. Background

ADOT, in cooperation with Federal Highway Administration ("FHWA") and Connect 202 Partners ("C202P"), is proposing to construct the SMF which will complete SR 202L. The freeway is a 22-mile, eight-lane highway in the southwestern quadrant of the Phoenix Metropolitan area. The freeway would consist of four lanes in each direction with a closed median comprised of a concrete median barrier. Several traffic interchanges utilizing entrance and exit ramps would be located at approximately 1-mile intervals. A combination of sound

walls and fencing would restrict access to the freeway. Small retention basins would be constructed to retain onsite flows and treat freeway runoff throughout the project. Utility relocation would occur as necessary, and landscaping would occur in areas disturbed by construction. A shared-use path¹ would also be constructed parallel to the freeway in the eastern part of the alignment. The SMF is being delivered using a public-private-partnership (“P3”) Design-Build-Maintain (“DBM”) approach. The project would be funded using state, federal, and local dollars, and the DBM mechanism would include the involvement of a private group (C202P) in the final design, construction, and maintenance of the freeway for 30 years.

To construct the freeway as proposed, discharges of fill material in WUS would be needed to construct crossings over the Salt River, Laveen Area Conveyance Channel (“LACC”), and 47 ephemeral washes. WUS would be conveyed through the project using concrete box culverts, concrete-lined channels, and pipes made of concrete, metal, or high-density plastic. Other drainage improvements such as riprap protection, energy dissipaters, and channel improvements would also occur within the project area. Maintenance of these structures would need to occur periodically to ensure that they continue to operate as designed. Please refer to the 404(b)(1) analysis and the Final EIS, including the reevaluations and SIR, for a full description of the proposed activities.

B. Location

The proposed project is located within the City of Phoenix and unincorporated areas of Maricopa County, Arizona. The proposed project starts at approximately milepost (“MP”) 54.31 on SR 202L (Santan Freeway) just west of I-10 (Maricopa Freeway), and extends west along the Pecos Road alignment. Approximately 0.80 mile west of the existing Chandler Boulevard intersection with Pecos Road, the project alignment turns northwest until it intersects Elliot Road between 59th Avenue and 63rd Avenue, where it then turns north and proceeds on an alignment roughly between 57th Avenue and 63rd Avenues. The project intersects I-10 (Papago Freeway) at approximately MP 139.20 and extends east and west along I-10 (Papago Freeway) between approximately MP 133.70 and MP 142.70. The approximate center of the project in decimal degrees is 33.319048 Latitude, -112.161501 Longitude. The proposed project’s location and footprint are depicted in Figure 1.

¹ The 1999 American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities defines a shared-use path as being physically separated from motor vehicular traffic with an open space or barrier. A shared-use path serves as part of a transportation circulation system and supports multiple recreation opportunities, such as walking, bicycling, and inline skating. A shared-use path typically has a surface that is asphalt, concrete, or firmly packed crushed aggregate. Shared-use paths should always be designed to include pedestrians even if the primary anticipated users are bicyclists.

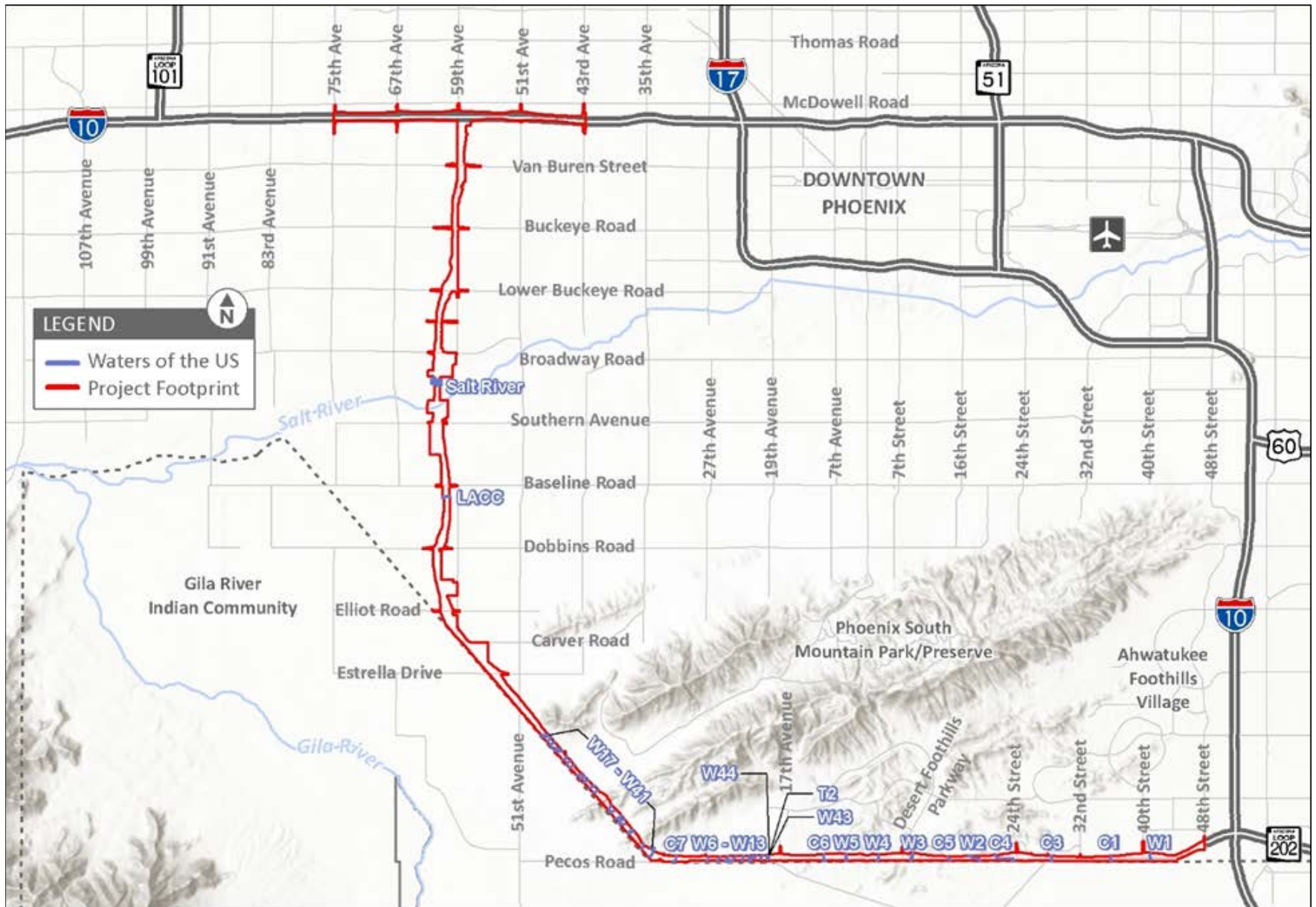


Figure 1. Location and footprint of the SMF with locations of WUS indicated.

C. General Description

The SMF project was originally included in the proposed 232-mile Maricopa Association of Governments (“MAG”) Regional Freeway System (now called the Regional Freeway and Highway System) as planned in 1985. At that time, it was added into the State Highway System by the State Transportation Board. The facility, designated as a portion of SR 202L, was designed as a high-speed, access-controlled freeway. The Regional Freeway and Highway System has been implemented over the years in phases to meet the transportation needs as funds became available. Throughout the years, further studies have been conducted to examine proposed freeway alternatives as other freeway segments were constructed and growth occurred in the region. However, versions of this proposed action have been included in MAG transportation documents throughout the years.

In 2001, the FHWA and ADOT initiated an EIS for the project as joint lead agencies. A Notice of Intent (“NOI”) to publish an EIS was published in the Federal Register on April 20, 2001. On September 7, 2001, FHWA and ADOT invited the Corps to be a cooperating agency on the project due to the likelihood that the project would be subject to Section 404 of the CWA. Invitations were also sent to the U.S. Environmental Protection Agency (“EPA”), U.S. Bureau of Indian Affairs (“BIA”), and U.S. Fish and Wildlife Service (“USFWS”) requesting their involvement as cooperating agencies. The Corps and BIA agreed to be federal cooperating agencies, while EPA and USFWS declined. Agency coordination was initiated in October 2001, with the Corps and other agencies providing information and comments during the scoping phase of the study. In 2009, the Western Area Power Administration (“Western”) was invited, and agreed, to be a cooperating agency.

In April 2013, the Draft EIS (“DEIS”) and Section 4(f) Evaluation was issued, which identified the W59 Alternative in the Western Section and the E1 Alternative in the Eastern Section as the Preferred Alternative. A Notice of Availability (“NOA”) was published in the Federal Register on April 26, 2013, and a 90-day public comment period followed until July 24, 2013. During this time, an extensive agency and public outreach program was developed and implemented. This program included an awareness campaign, in-person and online public hearings, and community forums. Particular effort was made by FHWA and ADOT to involve the Gila River Indian Community (“Community”) during the DEIS comment period and throughout project development. Details on the public involvement efforts are found in Chapters 2 and 6 of the FEIS.

On September 26, 2014, an NOA was published in the Federal Register announcing the availability of the Final EIS (“FEIS”) and Section 4(f) Evaluation and a 60-day comment review period. After the release of the FEIS, ADOT was informed by a stakeholder that some comments were missing from the FEIS. In response, an errata that included the missing comments was issued on November 28, 2014, and the comment period deadline was extended from November 25, 2014 to December 27, 2014. During this time, additional public outreach and coordination with the Community occurred, which included a Community-only forum that was held on November 15, 2014 by ADOT and FHWA. The FHWA ROD describes this outreach in detail.

On March 5, 2015, FHWA executed its ROD documenting its decision to choose the Preferred Alternative analyzed in the FEIS and Section 4(f) Evaluation as the Selected Alternative. A Notice of Final Federal Agency Action was published in the Federal Register on March 13, 2015.

In the time since FWHA issued the ROD, six FEIS reevaluations have occurred to address changes that have occurred with the project. These changes considered changes in the project such as minor modifications in design or the acquisition of additional right-of-way (“ROW”). These reevaluations have determined that the original FEIS is still valid and a supplemental EIS is not required since no substantial changes have occurred in the social, economic, or environmental impacts that would substantially impact the quality of the human, socioeconomic, or natural environment. Three of the six FEIS reevaluations analyzed modifications of the proposed action within WUS: the second reevaluation addressed the acquisition of ‘remainder parcels’ (land outside of the ROW which was acquired because it was no longer an economically viable parcel or the cost of damages to the value of the remainder parcel exceeds the cost of the remainder parcel itself); the fifth reevaluation addressed the acquisition of additional ROW, perpetual drainage easement and temporary construction easement for work within WUS located primarily along the Pecos Segment; and the sixth reevaluation addressed the acquisition of additional ROW and temporary construction easement for construction of the bridges over the Salt River.

In September 2016, ADOT began preliminary construction work on the project, and committed to flagging and avoiding areas within the Corps’ jurisdiction until a permit decision was made by the Corps. Since that time, the Corps has conducted periodic enforcement checks through informal site visits or review of high-resolution satellite imagery.

ADOT submitted a complete DA permit application for proposed discharges in WUS associated with Alternative C, described below, on November 7, 2016. The discharges into WUS would be associated with the construction of drainage crossings for the freeway over WUS. On December 7, 2016, the Corps issued a public notice to announce our consideration of the application and to solicit comments for 30 days on the proposed action’s discharges of fill material in WUS. A request to extend the comment period until February 7, 2017 was received from the Community and granted. In their comments, the Community requested a public hearing to provide Community members and the public an additional opportunity to comment on the project and provide additional information on the action under consideration by the Corps. The public hearing was held on May 9, 2017 and was followed by a 10-day comment period that ended on May 19, 2017.

In the permit application, ADOT requested that the Corps include maintenance activities in the project’s authorization. ADOT provided a detailed maintenance plan that outlined the proposed activities that would occur in WUS on September 6, 2017. On October 3, 2017, ADOT amended their complete application for a DA permit to incorporate minor changes that had occurred since they submitted their initial application as a result of design refinement and consultation with the Community on the design in the Center Segment (See Figure 2).

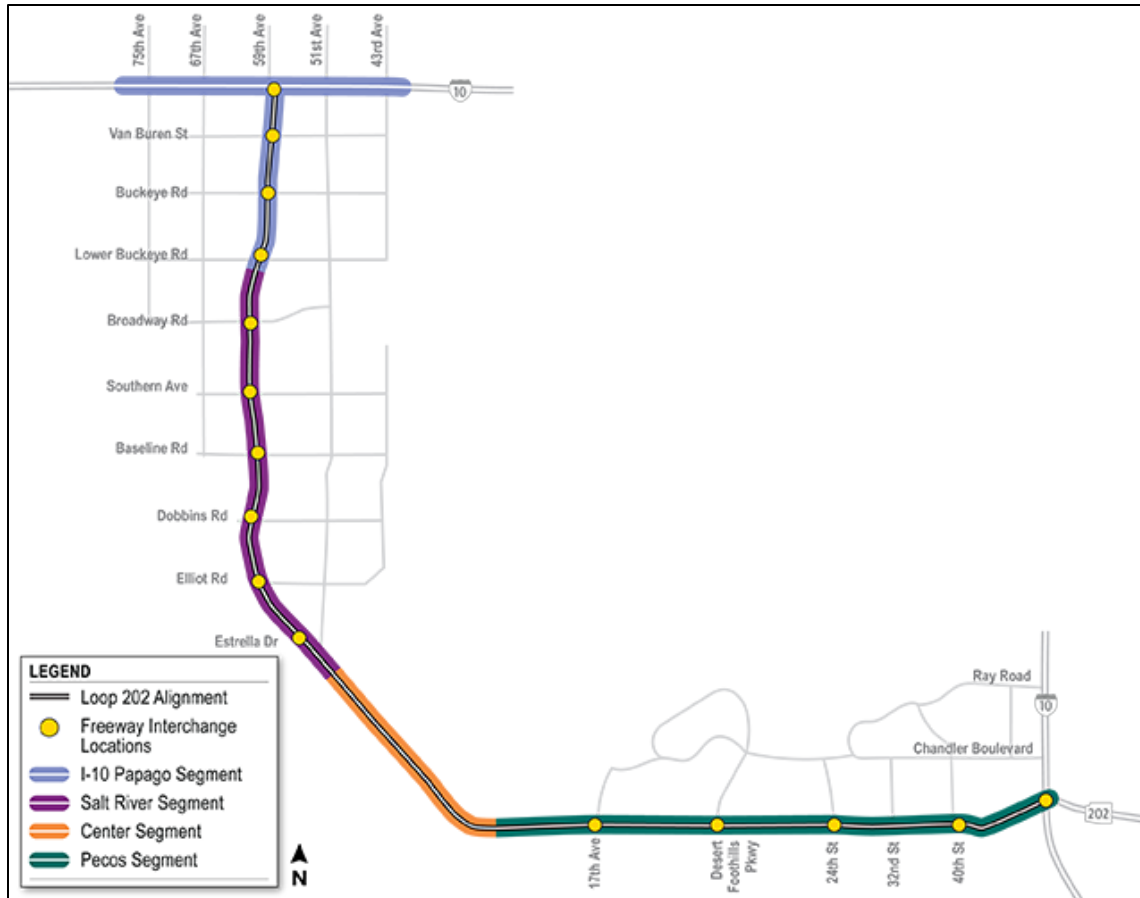


Figure 2. Construction segments of the SMF. Source: www.southmountainfreeway.com

The minor changes involved the following: (1) change in design at the Salt River to incorporate scour protection features around each bridge pier and include additional area that was determined to be needed for construction access and to construct the northern bridge abutment. Although the northern bridge abutment is not within WUS, temporary excavation for the abutment would extend southward into WUS; (2) On the Pecos segment, the shared-use path has been realigned in some areas to go over the tops of some culverts, which required minor increases in culvert lengths; (3) In the Center Segment east of the Community's Vee Quiva Casino, drainage structures were modified to address concerns that the freeway would exacerbate existing flooding concerns; (4) Other changes that have occurred elsewhere on the project include refinements to earthwork limits that have resulted in minor changes to culvert lengths, and minor changes in the length or width of concrete or riprap erosion protection aprons at the outlets of culverts. The Corps concluded that circulation of a new public notice was not required since the changes were relatively minor and did not change the scope of the work proposed.

III. PURPOSE AND NEED STATEMENT

For the purposes of the National Environmental Policy Act (NEPA), the FEIS contains the following purpose and need statement:

“The South Mountain Freeway has been included in the region’s adopted transportation planning documents since 1985 and remains in the current RTP [Regional Transportation Plan]. Using

state-of-the-practice methods and tools, the analysis conducted for the FEIS revealed that a major transportation facility is needed to address the following socioeconomic factors:

- Population, housing, and employment are projected to increase by approximately 50 percent between 2010 and 2035, increasing travel demand.
- Growth in vehicle miles traveled is projected to meet or exceed these socioeconomic factors and to further burden the already overtaxed regional transportation system.
- Almost 50 percent of projected increases in population, housing, and employment from 2010 to 2035 for the entire MAG region are expected to occur in the southwestern and southeastern portions of the Phoenix metropolitan area, which the South Mountain Freeway will serve.
- Although the economic downturn that began in late 2007 slowed growth, historic and projected long-term growth rates indicate the condition was temporary.

Repeated assessment of regional transportation demand and existing and projected transportation system capacity deficiencies revealed that a major transportation facility is needed to address:

- Transportation demand – Average daily traffic volumes on freeways and arterial streets are projected to increase substantially in and adjacent to the Study Area between 2012 and 2035.
- Quality of traffic operations – Level of service (“LOS”) is a measure of traffic congestion, with LOS A representing the least congested traffic conditions and LOS F representing the most congested. During peak commuting periods, the LOS on regional transportation facilities operating in the Study Area and its surroundings is poor, with much of the network congested for multiple hours. Even with planned improvements from implementation of the RTP (except the South Mountain Freeway), travel conditions are projected to get worse.
- Transportation capacity – The 2012 road network can serve only 84 percent of the total demand while operating at LOS D. Even with implementation of planned RTP improvements (except the South Mountain Freeway), the 2035 road network will be able to serve only 69 percent of the total demand while operating at LOS D.
- Travel time – Delays experienced daily by hundreds of thousands of drivers will continue to worsen over the course of the next 20-plus years, resulting in substantial lost time and related costs.

When considering the historical need for a major transportation facility, socioeconomic factors, existing and projected transportation capacity and demand, quality of traffic operational performance, and travel time, the South Mountain Freeway is a needed element of the MAG region’s transportation network. Therefore, a need was identified for a major transportation facility. The purpose of such a facility is to fulfill the multiple dimensions of this need.”

IV. ALTERNATIVES CONSIDERED UNDER NEPA

The following discussion provides an overview of the alternatives considered in the EIS for the purposes of NEPA. In 1983, the Council on Environmental Quality (CEQ) issued guidance stating “reasonable alternatives include those that are practical or feasible from a technical and economic standpoint” and “us[e] common sense.” When a large number of alternatives may exist, “only a reasonable number ... covering the full spectrum of alternatives, must be analyzed and compared in the EIS” (Federal Register 46:18026 [1981]). This discussion provides an

overview of the alternatives considered; please refer to the FEIS and its technical reports for detailed information.

A. Alternatives Considered in the EIS

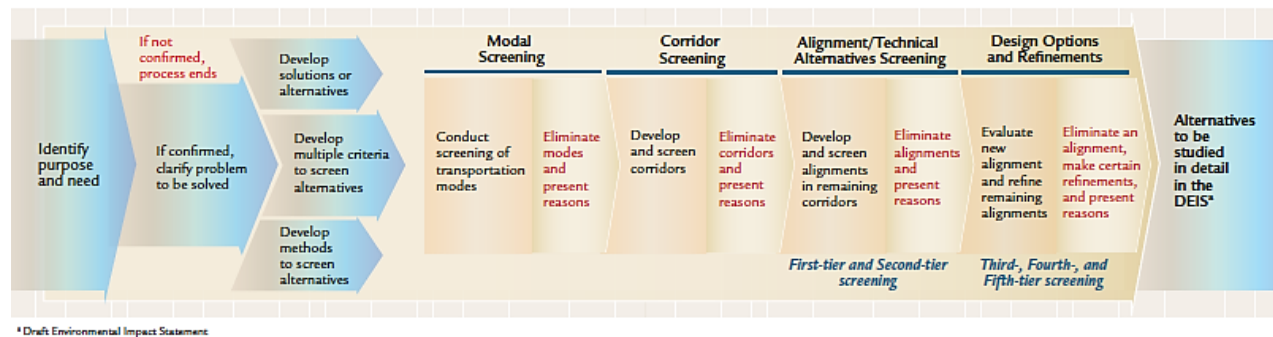


Figure 3. Process used to screen alternatives.

A rigorous and thorough process was used to develop and screen alternatives for consideration in the EIS (Figure 3). The process represents an interdisciplinary approach to ensure that an integrated and balanced consideration of all the relevant factors occurred. These factors included the ability to meet the need for the project, design and operational parameters, impacts on the natural and human environments, conceptual-level cost comparisons, and public and political acceptability. Using these factors, various alternatives were proposed and screened using a tiered process for further analysis in the FEIS. To better satisfy the purpose and need of the proposed action and to allow for more specific comparative impact analyses among the alternatives, the study area was divided into a Western Section and Eastern Section² (Figure 4) at a point that was common to all alternatives. This allowed for combining alignment alternatives in the Western Section with alternatives in the Eastern Section. The alternatives considered in detail are summarized below; refer to the FEIS for the details of each as well as the considerations that occurred during the development and screening process.

² The separation of the project into Eastern and Western Sections, as shown in Figure 4, is only applicable to discussions regarding the FEIS alternatives and do not correspond to the construction segments shown in Figure 2 or discussed in Section V.

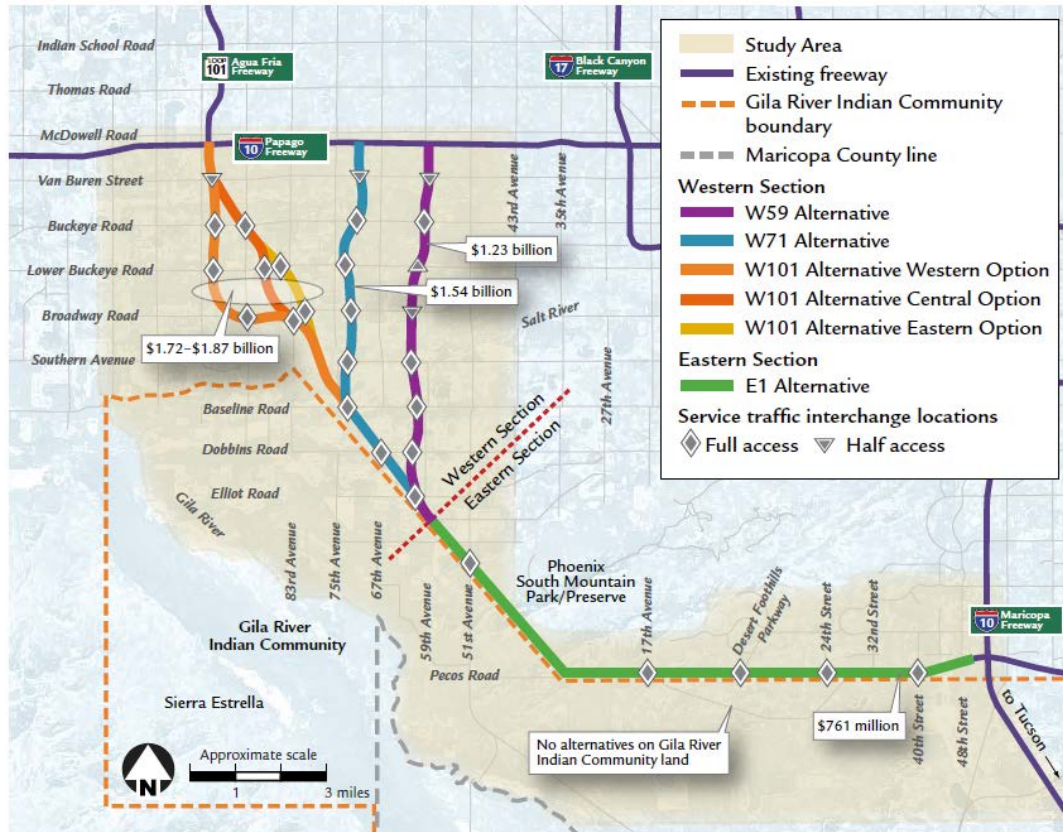


Figure 4 Action alternatives considered in detail in the FEIS.

No-Action Alternative

The No-Action alternative would result in no major transportation facility being constructed, such as the extension of SR 202L west of I-10 (Maricopa Freeway). However, other projects proposed in the RTP may still occur (e.g. mass transit expansions, arterial street improvements). Existing and future traffic using the existing segment of SR 202L (Santan Freeway) and the I-10 (Papago Freeway) would use the existing Interstate and Regional Freeway and Highway System facilities or the local street network.

Western Section Action Alternatives

W59 Alternative (Preferred Alternative)

This alternative would start at I-10 (Papago Freeway) at the existing 59th Avenue service traffic interchange, which would be replaced with a system traffic interchange. The alignment would then head south along the eastern side of 59th Avenue to Van Buren Street, where it crosses the Union Pacific railroad (UPRR) tracks would shift to the west side of 59th Avenue. Between Van Buren Street and the Roosevelt Irrigation District Canal (RID) (located between Buckeye Road and Lower Buckeye Road), 59th Avenue would be converted to a two-lane northbound and southbound frontage roads. The freeway alignment would continue south, making a slight shift to the west about 1/3 mile north of Lower Buckeye Road. The freeway would cross Lower Buckeye Road, Broadway Road, the Salt River (a WUS), and Southern Avenue before making a slight shift east. The alignment would continue south, about 1/4 mile west of 59th Avenue, crossing Baseline and Dobbins Roads. Between these two roads, the alignment would cross the LACC, which was identified as a potential a WUS in the preliminary jurisdictional determination

(PJD) for the project. After Dobbins Road, the freeway would make a curve transition to the southeast to cross Elliot Road and connect with the E1 Alternative at the Western/Eastern Section divide on an alignment parallel and adjacent to the Community boundary. Service traffic interchange locations would be located at the intersections noted in Figure 4. All interchanges would be full access (ramps in all four directions) except where undesirable operational conflicts may occur. At those interchanges, half access ramps would be constructed. Impacts to the LACC and the Salt River, the only resources presumed to be WUS in this Western Section alternative, would result from the construction of crossing structures such as bridges or culverts.

W71 Alternative

This alternative would start at I-10 (Papago Freeway) at 71st Avenue, where a new system traffic interchange would need to be constructed to connect the two freeways. The alignment would then head south-southeast, crossing Roosevelt Street, Van Buren Street, and the UPRR tracks. The alignment would then curve to the southwest, crossing Buckeye Road at approximately 71st Avenue and curve around the western side of Santa Maria Middle School. The alignment would then cross Lower Buckeye Road approximately ¼ mile east of 75th Avenue and continue to the south, crossing Broadway Road, the Salt River, and Southern Avenue. Just north of Baseline Road, the W71 Alternative would begin the curve transition to the southeastern direction and would cross Baseline Road, the LACC, Dobbins Road, and Elliot Road on an alignment parallel and adjacent to the Community boundary. The W71 Alternative would connect with the E1 Alternative at the point common to all action alternatives. Service traffic interchange locations would be located at the intersections noted in Figure 4. All interchanges would be full access (ramps in all four directions) except where undesirable operational conflicts may occur. At those interchanges, half access ramps would be constructed. Impacts to the LACC and the Salt River, the only resources presumed to be WUS in this Western Section alternative, would result from the construction of crossing structures such as bridges or culverts.

W101 Alternative and its Options

This alternative would start at a new system traffic interchange at I-10 (Papago Freeway) and SR 101L (Agua Fria Freeway). The alignment would travel in a southerly direction, crossing Roosevelt Street, Van Buren Street, and the UPRR tracks. At this point, the alternative has three alignment options that continue in a southerly direction, crossing Buckeye, Lower Buckeye, and Broadway Roads. The three options come back together into a common alignment just south of Broadway Road before crossing the Salt River near 79th Avenue. The alignment would continue to the southeast near the Community boundary to cross Baseline Road, the LACC, Dobbins Road and Elliot Road before connecting to the E1 Alternative at the point common to all action alternatives. All interchanges would be full access (ramps in all four directions) except where undesirable operational conflicts may occur. At those interchanges, half access ramps would be constructed. Impacts to the LACC and the Salt River, the only resources presumed to be WUS in this Western Section alternative, would result from the construction of crossing structures such as bridges or culverts.

Eastern Section Action Alternative

E1 Alternative (Preferred Alternative)

The E1 Alternative would travel from the Eastern/Western Section divide and travel southeast parallel and adjacent to the Community boundary. The alignment would pass through three

ridges of the South Mountains before turning east. The alignment would then follow and replace the existing Pecos Road alignment adjacent to the Community boundary and connect to the existing I-10 (Maricopa Freeway)/SR 202L (Santan Freeway)/Pecos Road traffic interchange. All interchanges would be full access (ramps in all four directions). This alternative would impact 49 ephemeral washes that are considered WUS, some of which were previously impacted by the construction of Pecos Road. Impacts from the proposed action would result from the construction or replacement of drainage crossing structures needed for the freeway such as pipes or culverts.

B. Comparison of Alternatives

The following is a summary of the comparison of impacts from the alternatives. A detailed discussion of the impacts resulting from the alternatives is included in the FEIS and Final CWA 404(b)(1) Guidelines Analysis. The No-Action alternative would result in no impacts to WUS, and none of the impacts identified in the FEIS would occur or be affected by construction of the freeway. All action alternatives that were considered in detail result in the construction of an eight-lane freeway within the study area connecting I-10 (Papago Freeway) to I-10 (Maricopa Freeway) (Figure 5) that would be routed south of the South Mountains, with different routes being considered for segments located north and west of the mountain range.

Temporary and permanent³ impacts to WUS associated with the E1 Alternative in the Eastern Section would result from the construction of drainage crossing structures such as corrugated metal pipe, concrete box culverts, or bridge structures, depending on engineering feasibility, environmental constraints, field reconnaissance data, and conceptual cost estimates. Some of these structures may be designed as multi-use wildlife and pedestrian crossings to reduce impacts to wildlife and cultural resources. In all Western Section alternatives (W59, W71, W101), a crossing would be placed over the LACC and a bridge would be placed at the Salt River to cross the floodplain. Temporary and permanent impacts to WUS at this location would result from the construction of bridge piers in WUS. Specific crossing designs were not analyzed in the EIS since final design had not occurred. However, impacts were estimated based on the design standards and typical construction methods used for constructing crossings over these types of drainages.

³ *Permanent Impacts* means WUS that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. 82 FR 2006 (January 6, 2017). *Temporary Impacts* refers to those impacts to WUS which occur when the WUS are temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction. 82 FR 2006 (January 6, 2017).

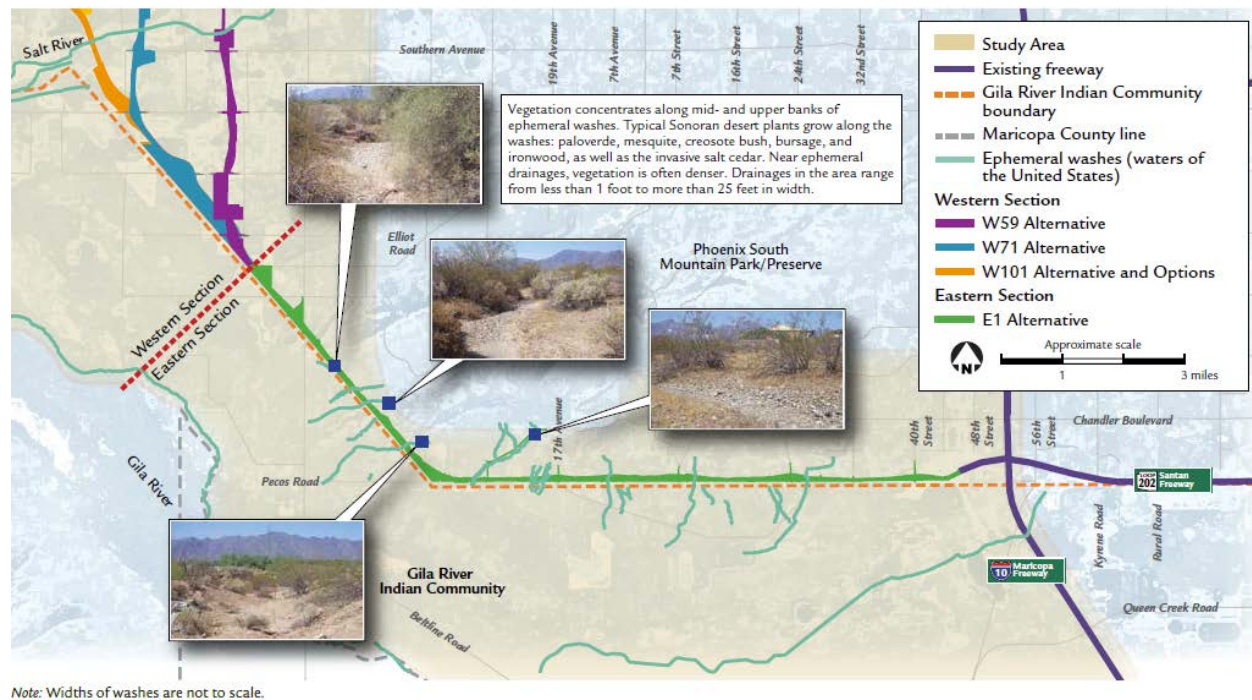


Figure 5. Approximate locations and distribution of WUS impacted by the alternatives. The LACC, located south of the Salt River, is not pictured. Please refer to the PJD issued for the project for specific location information (SPL-2002-00055).

To determine the impacts to potentially jurisdictional aquatic resources, a technical report was developed in 2012 in support of the DEIS. This report identified the type and estimated quantity of potentially jurisdictional aquatic resource present in each alternative that were subject to being impacted by construction. These estimates were not based on any jurisdictional determination made by the Corps, but included information from a field investigation and other available data sources. The acreages were further refined and included in the DEIS for each alternative, with a note being made that permanent impacts would be much less at the Salt River since only the bridge piers would result in permanent impacts to WUS. During the development of the FEIS, additional alternative refinements were made and the estimate was revised to focus on permanent impacts to WUS to preliminarily determine the type of permit the project may qualify for under Section 404 of the CWA. In 2013, ADOT submitted a request for a PJD. After conducting a field review with ADOT, the Corps issued a PJD in 2014 for areas potentially impacted by the preferred alternatives (E1 and W59). The PJD identified a total of 11.09 acres that may be WUS⁴. The PJD provided a more accurate estimate of the acres of WUS that may be within the

⁴A revision to the PJD was requested in November 2016 to correct an inaccurate acreage provided for one aquatic resource and to identify potential waters of the U.S. in additional temporary construction easements and permanent drainage easements that were added to the project and considered in the FEIS/ROD Reevaluation No. 5 in June 2017 by ADOT and FHWA. This revision identified an additional 0.64 acre of potential WUS within these areas. In October 2017, the PJD was revised once again to incorporate additional temporary construction easement needed in to construct the Salt River bridges, as identified in the FEIS/ROD Reevaluation No. 6 completed in June 2017. The final revision identified an additional 6.31 acres within the easement, for a cumulative total of 18.04 acres of potential WUS within the project limits.

alignment, and as a result, permanent impacts were determined in the FEIS to be less than 0.5 acre at the Salt River and between 1 and 2 acres for the entire E1 alternative (Table 1 and 2). While a jurisdictional determination was not completed for all of the Western Section alternatives considered in the FEIS, the Salt River is relatively similar at each potential crossing and a similar design would likely be used at all locations. Therefore, it is estimated that impacts for each Western Section alternative would be similar and result in approximately 0.5 acre of permanent impacts at the Salt River.

Table 1. Estimated Permanent Impacts to WUS for Western Section Alternatives.

Western Section Alternatives				
	No-Action Alternative	W59 Alternative	W71 Alternative	W101 Alternative with Options
Estimated Acres of Permanent Impacts to WUS	0	0.5	0.5	0.5

Table 2. Estimated Permanent Impacts to WUS for Eastern Section Alternatives.

Eastern Section Alternatives		
	No-Action Alternative	E1 Alternative
Estimated Acres of Permanent Impacts to WUS	0	2

All action alternative combinations would consist of one Western Section alternative and one Eastern Section Alternative (E1/W59, E1/W71, or E1 and one of the W101 options). All combinations would result in similar direct and indirect impacts in the aquatic environment. All but one aquatic resource that would be impacted by each alternative is considered ephemeral. The Salt River within the footprint of each alternative only flows in response to water releases from reservoirs located over 40 miles upstream, and may be dry for years at a time. In addition, all of the small washes that may be impacted only flow in response to storm events. Only the LACC is considered perennial since it conveys year-round flows in a shallow concrete channel that are supplied by irrigation tail water. Because of these characteristics, no special aquatic sites occur and the impacts to aquatic habitat would not be significant. Also common to all action alternatives is the amount and degree of wildlife habitat effects as well as impacts to threatened and endangered species and designated critical habitat. All action alternatives would also have very similar impacts to wildlife linkages and corridors.

The W71/E1 alternative would potentially impact the highest amount of 100-year floodplain acreage when compared to the other alternative combinations. However with all alternatives, these impacts would be largely mitigated by construction of an elevated crossing (on piers) through the floodplain. Regarding water supply and conservation, the W59/E1 alternative would affect the most groundwater wells. However, the well replacement program as outlined by state law would mitigate these impacts.

All action alternatives would have no effect on water-related recreation since WUS do not support these activities. However, all combinations would impact aesthetics and the South Mountain Park and Preserve, which includes the South Mountain Traditional Cultural Property (TCP). Regarding historic properties, all alternatives would impact NRHP-eligible sites, but the extent would be determined by subsequent testing. Impacts would be mitigated through use of strategies outlined in the Section 106 Programmatic Agreement.

Regarding land use and economics, the W59/E1 alternative combination would displace fewer residential properties than the W71/E1 or W101/E1 alternative, in part because local jurisdictions have planned for the proposed action near 59th Avenue. However in contrast, this alternative would also displace the most industrial and commercial properties. The W59/E1 alternative would have a nominal effect on the tax base in Phoenix, and less impact on Tolleson and Avondale than the other alternatives. Conversely, the W101 alternative would have a severe impact on the City of Tolleson's tax base and would eliminate a substantial amount the remaining developable land since the city is landlocked by Phoenix and Avondale. Land acquisition and relocation assistance services will be made available to all individuals in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

C. Alternatives Eliminated from detailed Study in the FEIS

During the alternatives development and screening process, numerous alternatives were evaluated in order to develop a reasonable range of alternatives. The process represented an interdisciplinary approach to ensure that an integrated and balanced consideration of all the relevant factors occurred. These factors included the ability to meet the need for the project, design and operational parameters, impacts on the natural and human environments, conceptual-level cost comparisons, and public and political acceptability.

Some of the alternatives evaluated included alternative modes of transportation including non-freeway options; use or expansion of existing facilities including those outside of the study area; and alignments and design options that would reduce or eliminate impacts to South Mountain and other sensitive resources. Below is a summary of the process and the alternatives that were eliminated; refer to Chapter 3 of the FEIS for details.

Early in the study, different modes of transportation and non-freeway options were evaluated to determine the best way to address the need for the project. It was determined that transportation system management/transportation demand management (TSM/TDM), transit, arterial street network expansion, land use management, and existing freeway expansion would have limited effectiveness in reducing overall congestion in the study area and would not meet the purpose and need.

After eliminating different modes of transportation and non-freeway options, potential locations for a freeway alignment were identified using information from past studies, project team input, and input from other agencies and the public. Locations with common traits were grouped into eight broad corridors to determine how a freeway in one corridor would fare against a freeway in another corridor in terms of satisfying the purpose and need and the potential environmental

impacts (Figure 6). Corridor A was eliminated since potential alignments would have lower traffic volumes near I-10 (Papago Freeway) than any other corridor and would have provided limited transportation benefit. Corridor H on Community lands was eliminated since no permission was granted to study alternatives in detail.

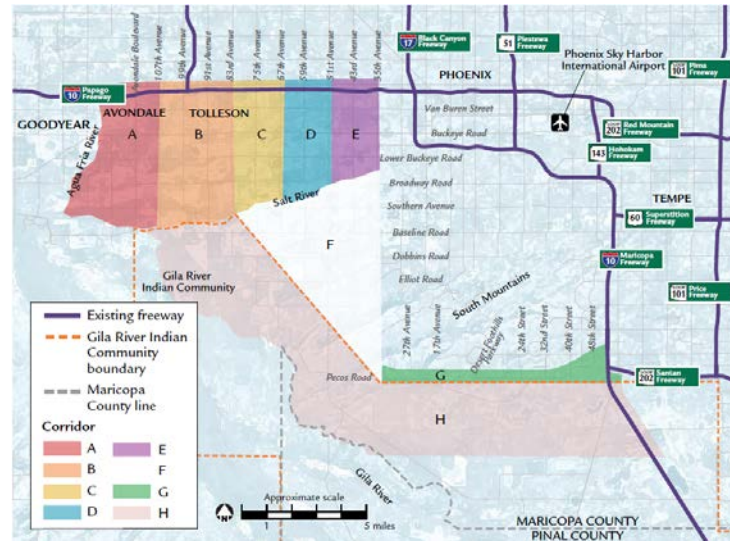


Figure 6. Corridor A and H were eliminated during the Corridor Screening process.

In the next two tiers of screening (First and Second), freeway location alignments were evaluated to identify a range of reasonable alternatives for detailed consideration. Some alignments outside of the study area were also evaluated at this stage to ensure all possibilities were fully explored (Figure 7). The location alignments in the study area were grouped together based on similar characteristics and screened against performance criteria associated with purpose and need, environmental impacts, design and operational characteristics, conceptual costs, and political and public concerns. This process resulted in six of the nine Western Section alternatives and seven of the eight Eastern Section alternatives being eliminated, as shown in Figures 8 and 9.

Nearly all of the alternatives considered would have similar impacts to WUS since most impact the Salt River and the ephemeral washes flowing from South Mountain. Only the US 60 extensions, I-10 Spur, and Central Avenue Extension Tunnel alternatives would have limited impacts to WUS. However, these alternatives were eliminated because they resulted in significant impacts, were cost prohibitive, or did not meet the purpose and need criteria.

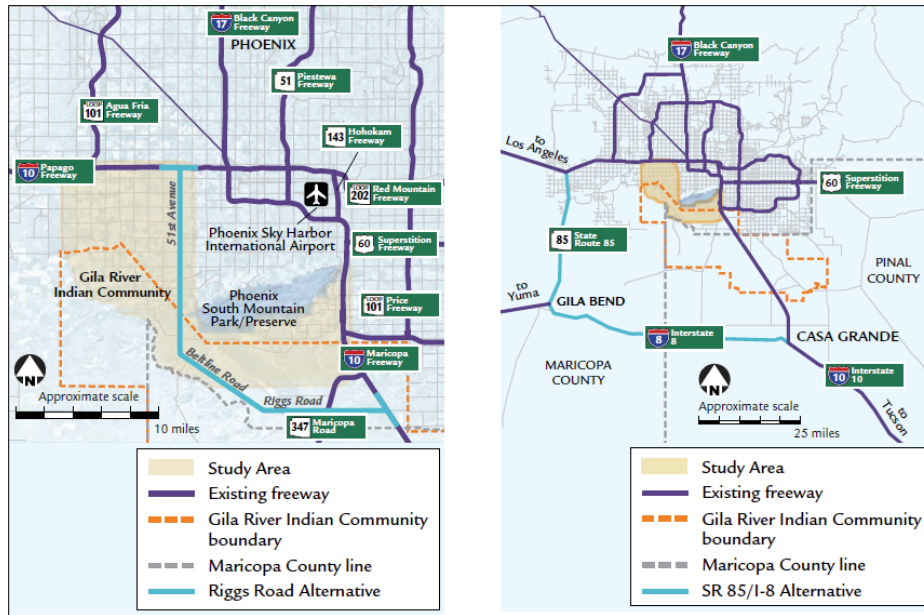


Figure 7. Alternatives outside of the study area that were evaluated but eliminated from detailed consideration.



Figure 8. Western Section alternatives eliminated from detailed consideration.

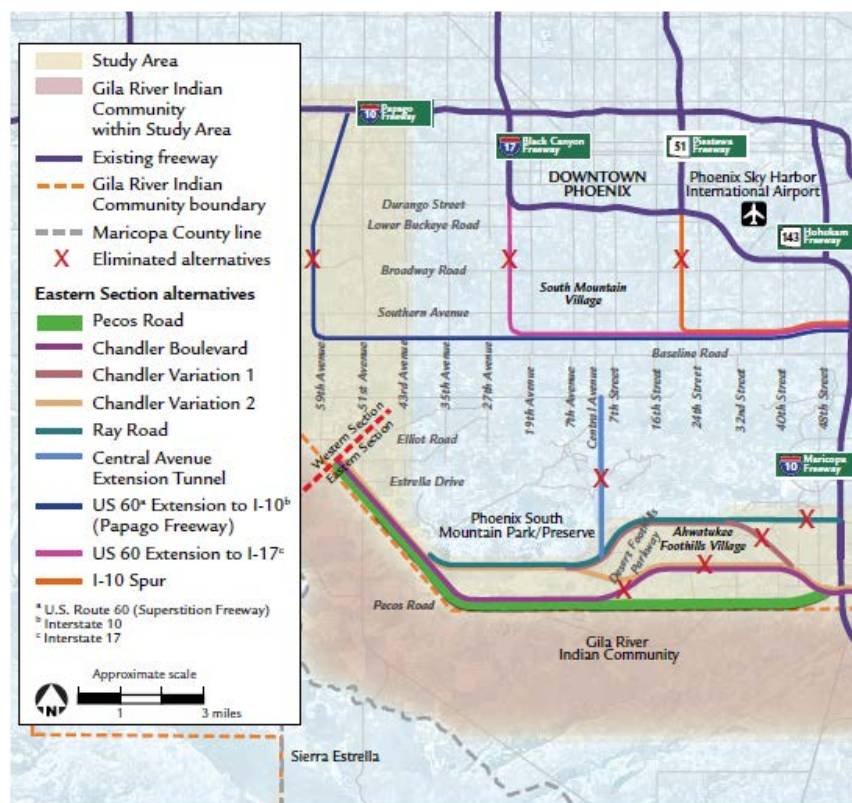


Figure 9. Eastern Section alternatives eliminated from detailed consideration.

In the third, fourth, and fifth tiers of screening, design options and refinements were evaluated to each alignment alternative. This included options such as vertical profile, locations and types of traffic interchanges, and options for handling off-site drainage. During this process, number of lanes on the freeway were reduced from ten to eight, which resulted in a reduced ROW footprint. As technical studies progressed, adjustments were made to try to avoid substantial impacts and to enhance operational characteristics of each alternative. At this stage, an alignment alternative on Community lands (Figure 10) was still being evaluated for Section 4(f) considerations⁵ since impacts to the South Mountains would have been mostly avoided. However, in February 2012, the Community held a referendum in which members voted in favor of the no-build option. As a result, the alignment on Community lands was not advanced further since it was no longer considered a practicable alternative.

⁵ Section 4(f) of the Department of Transportation Act of 1966 was established as a means to protect publicly owned parks, recreation areas, wildlife or waterfowl refuges, or any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places. Before approving a project that uses these lands, FHWA must either determine that the impacts are *de minimis* or undertake a Section 4(f) Evaluation. Lands from these areas may only be used if all possible planning to minimize harm has occurred and the Evaluation determines that there is no reasonable and prudent alternative.

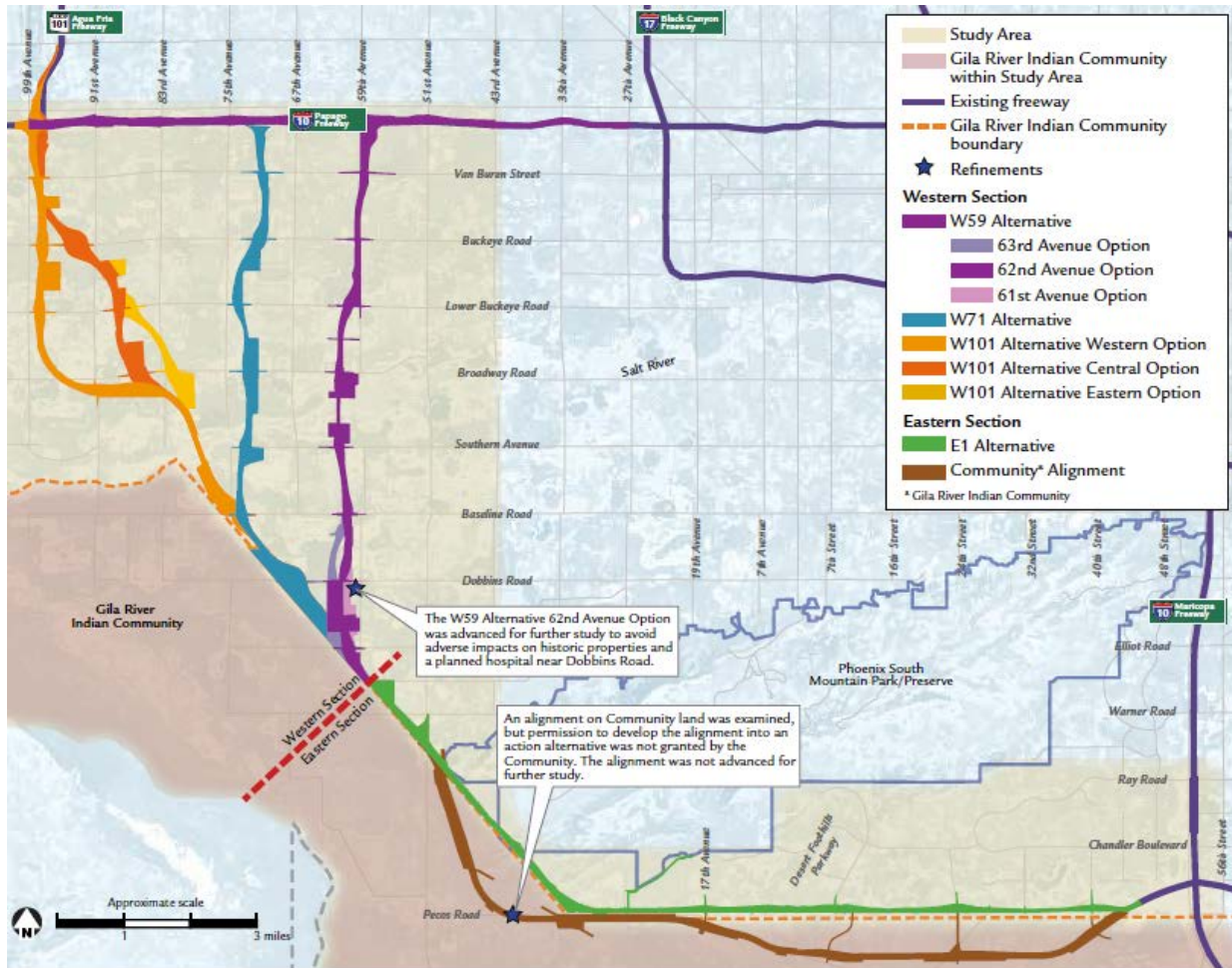


Figure 10. Alternatives evaluated in the later stages of the alternatives screening process.

D. Identification of the environmentally preferable alternative

The “environmentally preferable alternative” is the alternative that would most closely fulfill the national environmental policy found in Section 101 of NEPA. Essentially, it is the alternative that would cause the least damage to the biological and physical environment; it also means the alternative that would best protect, preserve, and enhance historic, cultural, and natural resources. Absent any consideration of the ability of alternatives to achieve the purpose and need of the proposed project, the environmentally preferable alternative is the No-Action Alternative. Each of the action alternatives would result in significant environmental and social impacts.

V. ALTERNATIVES CONSIDERED UNDER THE GUIDELINES

The following discussion provides an overview of the alternatives considered by the Corps for the purposes of the Guidelines. 40 C.F.R. section 230.10 states that no discharge of dredged or fill material in WUS will be authorized if there is a practicable alternative to the proposed discharge that would have less impacts on the aquatic environment, so long as the alternative does not have other significant adverse impacts. An alternative is considered practicable if it is available and capable of being done after considering costs, existing technology, and logistics in

light of the overall project purpose. The regulations also state that the alternatives analysis for NEPA will in most cases provide the information needed to evaluate alternatives under the Guidelines. On occasion, these NEPA documents may address a broader range of alternatives than required to be considered, or may not have considered the alternatives in sufficient detail to respond to the requirements of these Guidelines.

The Corps considered seven alternatives under the Guidelines, four of which were considered in detail. Three of the alternatives are the preferred alternatives identified in the FEIS for the Western and Eastern Sections (Alternatives B, C, and No Corps Action), but additional details were developed to determine the potential impacts to WUS to meet the requirements of the Guidelines. The remaining four alternatives are those that were considered in the FEIS but were eliminated early in the screening process. A brief summary of the alternatives is provided below; full descriptions can be found in the 404(b)(1) analysis. All of the alternatives considered in detail are within the scope of the FEIS and do not result in impacts that were not considered in regards to NEPA.

A. Alternatives Considered in Detail under the Guidelines

Alternative B- Final Location/Design Concept Report Design

Alternative B is the preferred alternative identified in the FEIS (W59 Alternative in the Western Section and the E1 Alternative in the Eastern Section). This alternative was developed by the applicant early in the design process and prior to the project's transition to a P3 using a DBM mechanism for implementation. In total, 51 WUS would be impacted by construction of this alternative. Impacts would result from the construction and maintenance of highway crossings such as culverts and bridges. However, the design does not provide drainage structures for 13 WUS. These drainages would be truncated by the freeway, which would result in complete loss of these drainages downstream of the freeway. All of the culverts and bridges would generally be constructed on the same alignment as the drainages, though some channel re-alignment would occur at some of the smaller drainage crossings. However, once construction is complete, all WUS would exit the freeway ROW in their existing channels, and existing flow characteristics would be maintained. Culvert work would include full replacement and extension of existing culverts, primarily along the existing Pecos Road, and installation of new culverts between west end of Pecos Road and 51th Avenue. Along Pecos Road, some existing culverts would be extended to the north which are a result of the conversion of the existing eastbound lanes into a shared-use path. Concrete and/or riprap aprons would also be constructed at most culvert outlets to protect against erosion. Between Chandler Boulevard and 51st Avenue, new culverts would be placed along with five multi-use crossing structures (bridges) that would function as crossings for both wildlife and people. Four of these crossings are at WUS, with three of them completely spanning WUS. The fourth multi-use crossings would require realignment of the wash, but flows would exit the ROW in their existing channels.

West of 51st Avenue, the only WUS in the project area are the LACC and the Salt River. The LACC would pass under the freeway mainline, entrance and exit ramps via three

bridge structures. Additional impact to the LACC would result from the construction of an outfall to a first flush basin that would capture onsite freeway flows. At the Salt River, two bridges measuring approximately 3,326-foot long with 22 piers each would be constructed over the riverbed and floodplain. Piers would be constructed atop 72-inch diameter drilled shafts and the average span width between piers would be 127-feet. Work within the Salt River would last approximately 18 months.

Proposed Maintenance Activities

Maintenance activities would include the repair, rehabilitation, or replacement of structures (which including deviations in configuration or fill area and include changes in construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards), sediment and debris removal, erosion repair, and authorize the placement of temporary fills to complete maintenance work. Maintenance activities would be restricted to the project's ROW.

Alternative B would result in 7.681 acres of permanent impacts to WUS, with 1.605 acres temporarily impacted. To be conservative, the applicant has considered temporary impacts that last more than 12 months to be included in the total for permanent impacts due to temporal losses and other impacts associated with the long term disturbance associated with the construction of the Salt River bridges. Impacts from future maintenance activities would occur within areas previously disturbed by initial construction and would be completed to in order to maintain the elevations and flow capacities that were established during initial construction. Deviations of the configuration or fill during repair, replacement, or rehabilitation of structures authorized by the DA permit would result in 0.03 acre or less of permanent impacts to WUS. The total estimated cost of work within WUS associated with construction would be \$137 million.

Alternative C- Connect 202 Design (proposed project)

Alternative C is also the preferred alternative identified in the FEIS (W59 Alternative in the Western Section and the E1 Alternative in the Eastern Section), but utilizes the design developed by Connect 202 after the project transitioned to a DBM mechanism. As with Alternative B, impacts to WUS would result from the construction of culverts and bridges. However, only 49 washes would be impacted by the project, and no drainages would be truncated by the freeway. All WUS would pass through the alignment in their existing configurations. In this alternative, the alignment of the shared-use path along Pecos Road would veer closer to the new freeway alignment, resulting in less impacts to WUS. All new drainage structures would be constructed here since the eastbound lanes of Pecos Road would not be used for the path and culvert extensions would not be needed.

In the Center Segment (as shown in Figure 2 in Section II.C), spreader basins were added downstream of some culverts that are located near the Vee Quiva Casino and Komatke on the Community. These basins were added to distribute flows downstream of the structures and maintain the sheet-flow characteristics that occur in the area.

The LACC would pass under the freeway via reinforced concrete box culvert instead of the three bridges described in the Alternative B. Sediment removal activities would also occur within the LACC up to 50 feet outside of the project ROW during initial construction, as requested by the City of Phoenix. In addition, no outflow for a first flush basin would be constructed here. Instead, onsite drainage would be conveyed under the LACC via a siphon and channel to a large first-flush detention basin located just south of the Salt River.

As with Alternative B, two bridges would be constructed across the Salt River. However, each bridge would be approximately 667 feet shorter (for a total approximate length of 2,660 feet). Furthermore, the average span between each pier would be longer, resulting in 15 piers in WUS for each bridge instead of the 22 that were associated with Alternative B. Scour protection aprons around each pier would also be constructed to protect the structure from erosion.

Proposed Maintenance Activities

Maintenance activities would include the repair, rehabilitation, or replacement of structures (which including deviations in configuration or fill area due changes in construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards, sediment and debris removal, erosion repair, and authorize the placement of temporary fills to complete maintenance work. Maintenance activities would be restricted to the project's ROW.

Alternative C would result in 5.829 acres of permanent impacts to WUS and 7.130 acres of temporary impacts. No impacts would last more than twelve months. Impacts from future maintenance activities would occur within areas previously disturbed by initial construction and would be completed to in order to maintain the elevations and flow capacities that were established during initial construction. Deviations of the configuration or fill during repair, replacement, or rehabilitation of structures authorized by the DA permit would result in 0.03 acre or less of permanent impacts to WUS. The total estimated cost of work within WUS associated with construction would be \$106 million.

B. Alternatives Considered but Eliminated from Detailed Consideration under the Guidelines

Alternative A- North of South Mountain

Alternative A, which consists of 3 sub-alternatives that were developed in the FEIS, would entail constructing a freeway north of the South Mountains from the US 60 (Superstition Freeway) terminus at I-10 (Maricopa Freeway) to one of three locations: I-10 at State Route 51, I-17 at the 'Durango Curve' (19th Avenue area), or I-10 (Papago Freeway) between I-17 and Loop 101 (Figure 11). These alternative terminus locations are considered under one alternative for the 404(b)(1) alternatives analysis since the impacts to WUS and the environment are similar for all three routes. Each sub alternative would result in construction of two bridges across the Salt River measuring approximately 900 to 2,700 feet long (to accommodate the different widths of the Salt

River floodway at each location). The bridges would likely be Precast/Prestressed Concrete BT82 Girder bridges supported by piers. No other WUS would be impacted with the construction of this alternative, and impacts to South Mountain would be avoided. Because the area is urbanized and consists of primarily residential and commercial areas, thousands of properties would have to be acquired along the entire route and the current residents would need to be relocated. This alternative would also cause substantial disruption to community character and cohesion, splitting South Mountain Village and constructing a barrier between schools, parks, and residences. Alternative A would result in 0.409 acre of permanent impacts to WUS, with 6.836 acres temporarily impacted. To be conservative, the applicant has considered temporary impacts that last more than 12 months to be included in the total for permanent impacts due to temporal and other losses associated with long term disturbances associated with the construction of the Salt River bridges. The total estimated cost of the work within WUS would be \$31.4 million.

In light of the 404(b)(1) Guidelines, Alternative A would impact the least amount of WUS out of all of the alternatives requiring a permit from the Corps. However, it would not achieve the overall project purpose, which is to help alleviate congestion, travel delays, and limited travel options for the safe transportation of people and goods in the Phoenix region. This alternative would likely still result in congestion and travel delays on I-10 (Maricopa Freeway) and US 60 (Superstition Freeway), extending to the east to the SR 101L (Price Freeway). There would also continue to be limited travel options through the Phoenix region, as all traffic would still be routed through central Phoenix as well as on existing arterial streets in areas where no freeway exists (particularly in southwest Phoenix). With population project to continue increasing, congestion and travel delays would increase in the future, decreasing the networks ability to provide for the safe transportation of people and goods in the region. Furthermore, Alternative A would result in other significant adverse environmental impacts to South Mountain Village. Therefore, Alternative A does not meet the requirements of the 404(b)(1) Guidelines and was not considered in further detail.

No Corps Action Alternative

The No Corps Action Alternative is also the environmentally preferred alternative identified in the FEIS (W59 Alternative in the Western Section and the E1 Alternative in the Eastern Section). However, all WUS would be spanned completely by constructing bridges or placing oversized culverts. In order to span the Salt River, an unconventional bridge structure would need to be designed which would significantly increase engineering, design, construction, and maintenance costs. Activities such as vegetation removal, equipment operation, and excavation, in a manner not regulated by the Corps, would still occur within waters of the U.S. More of the freeway alignment would need to be raised to accommodate the crossing structures, which would require significantly more fill material and would expand the footprint of the project. Additional property may need to be acquired and additional residences or businesses relocated to accommodate the larger footprint. Separate authorization would be required for any maintenance activities involving the discharge of dredged or fill material in WUS. The total estimated cost of construction to span WUS would be \$700 million. This alternative is not practicable due

to cost associated with constructing structures to span all waters of the U.S., which is estimated to be approximately 6 times higher than the two action alternatives. The increased cost results from the higher costs of bridges compared to culverts in addition to changes in the road profile needed to accommodate bridge structures, which typically requires more fill material. Bridges also typically require more scour protection measures, such as hard bank protection at the abutments. Also, the unconventional bridge structure that would be required to completely span the Salt River would likely result in increased engineering, design, and maintenance costs. Therefore, this alternative was rejected from further consideration.

Other Alternatives

The Corps also considered other alternatives from the FEIS under the Guidelines that would have avoided impacts to the South Mountains, but rejected them for detailed consideration. These included alternative located further south than Alternative B and C, constructing a bridge over the mountains, or tunneling under the mountains. Alternatives located to the south of the mountains were rejected since they would need to be partially located on Community lands in order to achieve the overall project purpose, which is to help alleviate congestion, travel delays, and limited travel options for the safe transportation of people and goods in the Phoenix region. Since permission was not granted by the Community to develop and construct any alternative on the Community on their lands, this alternative was not considered practicable. Options to build a bridge or tunnel through the South Mountains were also not considered in detail since these alternatives still resulted in impacts to the mountains and to WUS. In addition, these alternatives also have significant construction and operation considerations associated with them along with concerns regarding maintenance, safety, incident management, and homeland security considerations.

VI. MEASURES TO AVOID AND MINIMIZE ENVIRONMENTAL HARM

The measures to avoid and minimize impacts to the environment are summarized in the FEIS Summary and discussed in detail for each resource in Chapter 4 of the FEIS. It is recognized that ADOT as the state lead agency and FHWA as the lead federal agency, with continuing program responsibility over the entire project throughout its useful life, would implement, maintain, and monitor the full suite of measures identified in the FEIS and the Environmental Commitments identified in ADOT's and FHWA's ROD (Provided in Appendix C of this ROD). Mitigation measures we have determined are enforceable and subject to our continuing program responsibility have been incorporated into special conditions, as described in Section VII of this ROD.

The proposed action would result in a total of 5.829 acres of permanent impact to WUS. In order to offset these unavoidable impacts, the applicant will provide compensatory mitigation by securing 5.829 acre of restoration/enhancement credits from the Corps-approved Arizona Game and Fish Department In-Lieu Fee program. The determination of the 1:1 ratio is discussed in the 404(b)(1) analysis and was calculated using the procedures described in the South Pacific Division's Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios.

VII. DETERMINATIONS AND FINDINGS

A. NEPA.

Normally, the Corps establishes the scope of the NEPA document to address the impacts of the specific activity requiring a DA permit and those portions of the entire project over which the district engineer has sufficient control and responsibility to warrant Federal review. Because the SMF project involves multiple Federal agencies, with FHWA acting as the lead Federal agency, an EIS exists for the whole project.

The Corps is adopting FHWA's FEIS and subsequent second, fifth, and sixth reevaluations (the to satisfy the Corps' NEPA obligations related to ADOT's permit application pursuant to section 404 of the Clean Water Act.

A cooperating agency may adopt without recirculating an EIS of a lead agency when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied. 40 C.F.R. § 1506.3(c). Further, a district commander will normally adopt another Federal agency's EIS and consider it to be adequate unless he finds substantial doubt as to technical or procedural adequacy or omission of factors important to the Corps decision.

The Corps participated in the development of the EIS as a cooperating agency and reviewed it for adequacy. The Corps' comments and suggestions were satisfied. The Corps prepared a supplemental information report (SIR) to determine whether or not new information or changed circumstances are within the scope and range of effects considered in the EIS analysis. The SIR considered several sources of new information including:

- FEIS Reevaluations
- Clean Air Act General Conformity Rule Review
- Endangered species change in listing
- Public interest review pursuant to 33 C.F.R. § 320.4(a)(1)
- Public hearing held May 9, 2017
- Corps technical review of hydrology and hydraulics

The SIR concluded that no supplemental EIS analysis is warranted. The proposed changes are limited in scope and impacts are all within or adjacent to the footprint analyzed in the FEIS. The preferred alternative and its related impacts would not significantly change as a result of design of the project or modifications made since the issuance of the FEIS. I find the EIS technically and procedurally adequate and there are no omissions of factors important to the Corps' decision.

When a cooperating agency adopts a statement whose adequacy is subject of judicial action which is not final, the agency must document it per 40 C.F.R § 1506.3(d). The EIS was challenged in U.S. District Court by the Community, Protect Arizona's Resources and Children (PARC), and other parties. The plaintiffs assert that FHWA and ADOT did not fulfill their obligations under NEPA and Section 4(f) of the Department of Transportation Act to carefully and thoroughly identify issues, assess alternatives, and minimize adverse impacts. They state that critical flaws in the evaluation and decision-making process have resulted in a preordained

decision that was arbitrary, capricious and an abuse of discretion. They also state that the agencies relied on incomplete data and did not evaluate the unique impacts of the project on Community, its members or the affected animal and plant life in the South Mountain Preserve and Park (SMPP). The U.S. District Court ruled in favor of FHWA and ADOT on August 19, 2016. However, the plaintiffs have appealed the ruling to the 9th Circuit Court of Appeals, and the case is still pending (Case Number 16-16586 and 16-16605).

B. Section 401 of the CWA.

Section 401 requires an applicant for any Federal permit who proposes an activity that may result in a discharge to WUS to obtain from the appropriate State certification that the discharge will not result in a violation of State surface water quality standards. No Federal permit or action may be approved if the State denies certification. ADEQ issued ADOT a CWA Section 401 Water Quality Certification (“WQC”) on February 22, 2017. On October 13, 2017, ADOT provided ADEQ updated information for the WQC regarding changes in design that had occurred since the issuance of the WQC (ADOT also provided this information to the Corps in a revised DA permit application package on October 4th, 2017). In its response, ADEQ did not provide any comments or concerns and stated that it would note the impact changes to their files. On October 31, 2017 ADEQ followed up their response by stating that the modifications did not require recertification and that the February 2017 WQC adequately certifies that the project will not violate applicable surface water quality standards.

C. Endangered Species Act of 1973.

The Endangered Species Act of 1973, as amended, requires Federal agencies (e.g., FHWA and Corps) to use their authority to conserve endangered and threatened species. Section 7(a)(2) of the Act requires Federal agencies to consult with the USFWS and/or the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service to ensure that the actions they authorize, fund, or conduct are not likely to jeopardize the continued existence of any listed species or adversely modify designated critical habitat of such species.

The project will not affect any currently listed threatened or endangered species. A Biological Assessment was submitted by ADOT and FHWA, as the lead Federal agency, to USFWS and the Community’s Department of Environmental Quality and a copy was also provided to AZGFD. The Biological Assessment addressed threatened, endangered, and candidate species that may be affected by the SMF. The FHWA determined the project would have no effect on listed species or designated critical habitat. Since completion of the FEIS, USFWS removed the Tucson shovel-nosed snake from the candidate list; therefore, there is no intent to list the snake as threatened or endangered. FHWA and ADOT continue to coordinate with USFWS, AZGFD, and the Community’s Department of Environmental Quality during the design phase, and this consultation will determine whether any additional species-specific mitigation measures will be required. In addition to the removal of the Tucson shovel-nosed snake, the yellow-billed cuckoo, which was designated in the FEIS as “proposed threatened,” is now listed as threatened with proposed critical habitat. Although proposed critical habitat for the cuckoo occurs within the project vicinity, the proposed critical habitat does not occur within the proposed project area. The proposed project is over 2 miles from the proposed critical habitat.

In a letter dated April 26, 2017, FHWA stated in response to a request from FEMA, during its review of the CLOMR, that they maintain the finding of no effect. The letter states, in part, “The USFWS Information, Planning and Conservation IPaC) system was accessed on February 21, 2017, to identify any new ESA-protected species or habitat potentially occurring within the project area since the ROD. No additional ESA-protected species or habitats were identified in the IPaC resources list beyond those considered in the ROD. Habitat conditions in the project area have not changed substantially. Therefore, FHWA has determined that a finding of “no effect” to threatened or endangered species or their habitat is appropriate for this project.”

The IPaC system was accessed by ADOT on September 1, 2017 and reviewed by the Corps in order to identify any newly listed species or habitat potentially occurring within the project area since FHWA accessed the IPaC system in February 2017. No additional ESA-protected species or habitats were identified in the IPaC resources list beyond those previously considered by FHWA above. This meets the Corps’ ESA requirements.

D. Fish and Wildlife Coordination Act.

The Act requires consultation with the USFWS and the fish and wildlife agencies of States where the “waters of any stream or other body of water are proposed or authorized, permitted, or licensed to be impounded, diverted ... or otherwise controlled or modified” by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of “preventing loss of and damage to wildlife resources.” The Corps notified the USFWS and AZGFD through the public notice process, and no comments were received. However, the applicant and FHWA as lead federal agency had previously coordinated with the AZGFD to address wildlife concerns on the overall project, which includes areas under the Corps’ jurisdiction. As a result of this coordination, five multi-use overpasses were incorporated in the design to accommodate wildlife movement, four of which are at WUS. In addition, the designs for two culverts were modified to include small animal crossings at WUS.

E. Section 106 of the National Historic Preservation Act (“NHPA”) (54 U.S.C. § 306108).

Section 106 of the NHPA requires that Federal agencies “prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register.” Additionally, the NHPA requires Federal agencies to consult with tribes to determine whether there are traditional religious and cultural properties that may be adversely affected by a proposed undertaking.

Consultation under Section 106 of the NHPA was conducted by FHWA, as the lead agency, regarding the impacts the proposed project would have on historic properties. A Programmatic Agreement (“PA”) among the FHWA, the Arizona State Historic Preservation Office, and ADOT was executed on December 29, 2006. The PA was subsequently revised and executed by the signatories on July 21, 2015 to extend the duration and address changes that occurred when the project transitioned to the P3 delivery method. The Corps has been involved in the consultation as a consulting party, and in response to ADOT’s permit application signed the PA as a concurring party on September 26, 2017.

F. Section 176(C) of the Clean Air Act (CAA) General Conformity Rule Review.

The General Conformity rule ensures that Federal actions comply with the national ambient air quality standards. In order to meet this CAA requirement, a Federal agency must demonstrate that every action that it undertakes, approves, permits or supports will conform the appropriate State Implementation Plan (SIP). A conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraph (b) of 40 C.F.R § 93.153.

As discussed in the SIR, the total direct and indirect construction emissions caused by the Corps' Federal action would be below the applicability emissions rates. Therefore, pursuant to section 176(c) of the CAA, the Corps is not required to make a general conformity determination for the proposed action.

G. Executive Order 11998 Floodplain Management.

Executive Order 11988 requires federal agencies to prepare floodplain assessments for proposed actions located in or affecting floodplains. If an agency proposes to conduct an action in a floodplain, it must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If the only practicable alternative involves siting in a floodplain, the agency must minimize potential harm to or in the floodplain and explain why the action is proposed there. The proposed project would have limited impacts to floodplains and the EIS considered alternatives to avoid and minimize such impacts. The City of Phoenix floodplain manager and the Flood Control District of Maricopa County have both reviewed and signed the Conditional Letter of Map Revision (CLOMR), which has been submitted to the Federal Emergency Management Agency (FEMA).

H. Executive Order 11990 Protection of Wetlands.

Executive Order 11990 requires federal agencies to prepare wetland assessments for proposed actions located in or affecting wetlands. Agencies must avoid undertaking new construction in wetlands unless no practicable alternative is available and the proposed action includes all practicable measures to minimize harm to wetlands. The proposed project would not impact any wetlands.

I. Executive Order 12630.

This Executive Order states that Executive departments and agencies should review their actions carefully to prevent unnecessary takings. The decision complies with this Executive Order.

J. Executive Order 13175 Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians.

Executive Order 13175 reaffirms the Federal government's commitment to tribal sovereignty, self-determination, and self-government. Its purpose is to ensure that all Executive departments and agencies consult with Indian tribes and respect tribal sovereignty as they develop policy on issues that impact Indian communities.

ADOT and FHWA, as the lead federal agency and on behalf of the Corps, conducted extensive tribal consultations with all federally recognized Tribes which have a religious or cultural tie to the proposed project area or whose direct ancestors had historic or pre-historic religious or cultural ties to historic properties that may be affected by the undertaking. ADOT continues to consult and coordinate with the Community on aspects of the design and will continue through construction of the project. A more detailed discussion of these consultation efforts is found in the FEIS.

The Corps has also undertaken consultation efforts with the Community. The Corps responded to requests for government-to-government consultation and met with Community leaders to discuss the concerns regarding project's potential impacts to the Community, which is located adjacent to the Pecos, Center, and Salt River Segments of the project for nearly 11 miles (See Figure 2 in Section II.C). One of the primary concerns expressed was the project's potential to impact the flow characteristics of jurisdictional waters that flow onto tribal lands after flowing through the project footprint in the Pecos and Center Segments, which may result in increased flooding risks. The Community was also concerned that the project would change the conditions identified in the Komatke Area Drainage Master Study (KADMS), upon which several proposed flood control solutions have been developed in the Komatke Area Drainage Master Plan (KADMP). The Corps has worked with the Community and ADOT to facilitate review of the designs and drainage reports by Community Land Use Planning and Zoning Department's Flood Control Section. ADOT agreed to consider the concerns of the Community during the design process and has incorporated changes into the design based on comments received, particularly near the Vee Quiva Casino. The Corps has also independently reviewed the drainage designs and modeling data for the Pecos Segment to determine if there was potential for downstream impacts to occur on Community lands as a result of changes in flow patterns and increases in velocity. As stated in the SIR, the Corps' review confirmed that, except for Wash C4, the project's drainage design is not likely to result in downstream impacts because existing flow patterns and drainage configurations were being maintained and the velocities were being reduced to a level that would not increase erosion or cause a downstream adverse impact beyond existing conditions. In response to the Corps' review, the applicant elected to modify the design for Wash C4 downstream of the freeway mainline, as well as another crossing outside of WUS, to ensure that existing flow patterns are maintained. This design modification would not result in additional permanent impacts to WUS or change the impacts to the aquatic environment beyond what has been considered in the 404(b)(1) analysis; however no discharges of fill material would be allowed to occur in Wash C4 further than 20 feet from the freeway mainline toe of slope until updated design drawings have been submitted to the Corps for review and the Corps has issued a written notice to proceed.

At the time of the permit decision, drainage designs and modeling data for the Center Segment had not been made available for review by the Corps. This segment is located near the casino and the community of Komatke, where the primary drainage concerns expressed by the Community are focused. In late October 2017, the Community authorized implementation of the Komatke Area Drainage Master Plan to resolve short-term and long-term flooding in the Komatke Area. This plan was based on the Komatke Area Drainage Master Study, developed to identify existing flood hazards and recommend regional flood mitigation alternatives in the Komatke Area. Because of these two factors it is unclear if the proposed drainage crossings in

the Center Segment would have impacts downstream on Community lands. The Corps will undertake a similar review of the Center Segment drainage structures once the information is available and prior to allowing any work within WUS to occur in this segment. As with the Pecos Segment, the Corps' review of the Center Segment's drainage designs and modeling data will provide independent verification that authorized discharges in that segment will not cause adverse effects from water elevations or velocities downstream. Corps-authorized work in the Center Segment will not occur unless and until the Corps can make that verification. As such, a special condition will be included in the DA permit to ensure no discharges of fill material in WUS within the Center Segment are allowed to occur unless and until ADOT 1) considers the information provided in the Komatke Area Drainage Master Study 2) conducts a drainage analysis acceptable to the Corps, 3) submits the drainage reports and hydrologic data to the Corps, and 4) receives written notice to proceed from the Corps.

As stated in Section IX.B, the Corps also held a public hearing at the request of the Community to collect additional information to be used while evaluating the activities being proposed in WUS. While the public hearing was open to everyone and is not in itself considered a tribal consultation action, close coordination occurred with the Community so that hearing was well advertised and accessible to tribal members and tribal government officials who wished to provide comments on the project. The public hearing was held on Community lands in a location that was convenient to members and others that would most likely be affected by the project. The Corps worked with the Community's Communications and Public Affairs Office to advertise the public hearing through social media posts, flyers, and newspaper advertisements, which resulted in a hearing that was well attended by Community government officials and members. I have fully considered the matters discussed at the public hearing in arriving at my decision.

K. Environmental Justice (Title VI of the Civil Rights Act and Executive Order 12898).

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations," was signed by President Clinton in 1994. The executive order requires agencies to advance environmental justice by pursuing fair treatment and meaningful involvement of minority and low-income populations. Fair treatment means that such groups should not bear a disproportionately high share of negative environmental consequences from Federal programs, policies, decisions, or operations. Meaningful involvement means that Federal officials actively promote opportunities for public participation and that Federal decisions can be materially affected by participating groups and individuals.

As part of the EIS process, ADOT and FHWA engaged all population segments to ensure access to the EIS study process. The proposed project would benefit all populations in general by reducing traffic congestion, enhancing accessibility, and supporting local economic development plans. Although impacts on cultural resources and places of spiritual importance raise potential environmental justice concerns, extensive consultation, avoidance, and mitigation measures have been implemented by FHWA and ADOT. The mitigation measures accommodate and preserve (to the fullest extent possible from the available alternatives) access to the South Mountain for

religious purposes. The analysis also showed that the project will not cause disproportionately high and adverse effect on any minority or low impact populations in accordance with the Executive Order. Environmental Justice is discussed in detail starting on page 4-29 of the FEIS. FHWA served as the lead for the Corps on the SMF project regarding cultural resources.

L. Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–711).

The Act provides Federal protection to all migratory birds, including nests and eggs. Under this Act, it is unlawful to take, kill, or possess migratory birds. There are no specific provisions or permit requirements for non-purposeful take; indeed, the intent of the Act is to protect migratory birds from purposeful take and regulate take where warranted. Impacts to migratory birds under the Migratory Bird Treaty Act in Chapter 4 of the FEIS. Necessary avoidance measures would be undertaken as necessary; if a take is expected to occur, permits would be acquired from the USFWS Migratory Bird Treaty Act permits office in Albuquerque, New Mexico.

M. Compliance with the Guidelines.

Based on the analysis in the Final CWA Section 404(b)(1) analysis, I find the proposed discharges of fill material into WUS to comply with the requirements of the Guidelines. The following are my specific, Guidelines-responsive findings.

- A. Are there available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into WUS or at other locations within these waters?

Through the 404(b)(1) analysis, the Corps has determined there are no available, practicable alternatives having less adverse impact on the aquatic ecosystem and without other significant adverse environmental consequences that do not involve discharges into WUS or at other locations within these waters. Complete avoidance of WUS (No Corps Action) is not practicable for this project, as complete avoidance would increase the project footprint and would be far more costly (more than 6 times the cost). Locating the project north of the South Mountains (Alternative A) would result in less impacts on the aquatic ecosystem, but would result in significant adverse effects to South Mountain Village as several thousand residences and businesses would need to be acquired and relocated, disrupting the community character and cohesion. Furthermore, locating the project north of the mountains would not achieve the overall project purpose, which is to help alleviate congestion, travel delays, and limited travel options for the safe transportation of people and goods in the Phoenix region. Alternative B would permanently impact an additional 1.852 acres than Alternative C and truncate 13 washes, resulting in additional impacts downstream of the project. In addition, Alternative B may cause additional impacts to water quality since the design includes an outflow for a first-flush basin at the LACC, which provides a perennial water supply to the Pee Posh Wetlands downstream of the project. Alternative C would maintain all flow connections and would not result in an outflow being constructed at the LACC since onsite flows in this area would be conveyed to a large first flush basin south of the Salt River. Therefore, Alternative C is the alternative that is most practicable and would have less adverse impacts on the aquatic ecosystem without resulting in other significant adverse environmental consequences.

B. Will the project:

1. Cause or Contribute to violations of any applicable State water quality standard?
Yes No
2. Violate any applicable toxic effluent standard or prohibition under Section 307 of the Clean Water Act?
Yes No
3. Jeopardize the continued existence of federally listed threatened or endangered species or affects their critical habitat?
Yes No
4. Violate the requirements of a federally designated marine sanctuary?
Yes No
5. Will the discharge contribute to significant degradation of WUS through adverse impacts to:
 - a) Human health or welfare, through pollution of municipal water supplies, fish, shellfish, wildlife and special aquatic sites?
Yes No
 - b) Life states of aquatic life and other wildlife?
Yes No
 - c) Diversity, productivity and stability of the aquatic ecosystem, such as the loss of fish or wildlife habitat, or loss of the capacity of wetland to assimilate nutrients, purify water or reduce wave energy?
Yes No
 - d) Recreational, aesthetic and economic values?
Yes No
6. Will all appropriate and practicable steps be taken to minimize adverse impacts of the discharge on the aquatic ecosystem?
Yes No

Based on the analysis in the Final CWA Section 404(b)(1) Guidelines Analysis (Appendix B), I find the proposed discharges of fill material into WUS associated with Alternative C (Connect 202 Design) comply with the requirements of the Guidelines with

the inclusion of appropriate and practicable general and special conditions in the permit to minimize pollution or adverse effects to the affected ecosystem.

VIII. SPECIAL CONDITIONS

The following special conditions would be added to any permit proffered to ensure potential adverse effects associated with proposed project are minimized and adequate compensatory mitigation occurs for unavoidable permanent impacts to WUS:

1. Mitigation.

Prior to initiating construction in WUS, and to mitigate for impacts to 5.829 acres of non-wetland WUS, the Permittee shall provide documentation verifying purchase of 5.829 restoration/enhancement credits (impacts mitigated at a 1:1 ratio) from the Corps-approved Arizona Game and Fish Department (AZGFD) in-lieu fee program (ILFP). The Permittee shall not initiate work in WUS prior to receiving written confirmation (by letter or e-mail) from the Corps Regulatory Division as to compliance with this special condition. The Permittee retains responsibility for providing the compensatory mitigation until the number and resource type of credits described above have been secured from AZGFD and the district engineer has received documentation that confirms that AZGFD has accepted the responsibility for providing the required compensatory mitigation in accordance with the ILFP instrument.

2. Changes in Design or Impacts to Waters of the U.S.

The Permittee has provided detailed drawings, specifications, and impact sheets at a level of detail to allow the Corps to sufficiently determine impacts to WUS. However, the Corps recognizes that design-build projects frequently experience design modification after permit issuance. Furthermore, ongoing consultation with the Gila River Indian Community and other factors regarding drainage concerns may result in modifications to the design after permit issuance. If changes to design or impacts to WUS occur, the Permittee must contact the Corps and provide information regarding the proposed changes so that it can determine if additional authorization is required to comply with Section 404 of the Clean Water Act. Each submittal shall meet the Final Map and Drawing Standards for the South Pacific Division (SPD) Regulatory Division and identify any changes in the design that have occurred since permit issuance.

3. Impacts to existing flows, submission of the drainage reports.

To prevent adverse impacts to adjacent properties, the Permittee must prevent increases in flow characteristics such as discharge, velocity, and surface water elevation upstream and downstream of the project area within WUS and immediate vicinity. Existing drainage patterns and paths must be matched in the proposed condition within WUS and immediate vicinity. It may be necessary to conduct 2-Dimensional analyses to confirm existing condition drainage patterns and paths are matched. If increases are unavoidable, mitigation measures shall be implemented to reduce any increases to a level that will not cause adverse impacts such as flooding, erosion or scour to occur on adjacent properties beyond existing conditions. WUS within the Pecos and Center Segments have been identified as areas where risks to adjacent properties exist. Drainage analysis reports documenting the existing and proposed conditions for the Pecos Segment have been submitted to the Corps for review to verify compliance with this requirement. These reports have been reviewed and additional supporting documentation and design analyses have been submitted and reviewed.

Revision to the Hydrology and Hydraulics Reports and Design Plans must be submitted to the Corps for final comment close-out. No work is authorized to occur further than 20 feet downstream of the mainline toe of slope in Wash C4 until a revised Design Plan and Impact Sheet have been submitted to the Corps. After Corps review and if no concerns are found, the Corps shall provide written concurrence and notice to proceed via email or letter, after which all authorized work for Wash C4 may proceed.

Hydrology and Hydraulics Reports for the Center Segment were not complete at the time of permit issuance; these reports shall be submitted to the Corps and the Gila River Indian Community for review. No discharges of fill material in WUS shall occur in WUS within the Center Segment until the Corps review is complete. After Corps review and if no concerns are found, the Corps shall provide written concurrence and notice to proceed via email or letter, after which authorized work in the Center Segment may proceed.

Within the Center Segment, Permittee shall consider the existing condition analysis from the Gila River Indian Community's Komatke Area Drainage Master Study when evaluating potential downstream impacts on the Community's lands. A drainage analysis acceptable to the Corps may be needed to demonstrate existing flow patterns on Community lands are matched. The Permittee shall provide the Corps documentation of efforts to coordinate with the Gila River Indian Community to address concerns and share information regarding the design of the Center Segment of the proposed South Mountain Freeway project. This documentation will be provided on a monthly basis until construction in WUS is complete and will be provided to the Corps by the fifteenth of the following month.

4. Notification.

The Permittee shall provide notification, via email or letter, to the Corps Regulatory Division at least one week prior to the start of work, as to the anticipated beginning and ending dates of construction and maintenance activities authorized by the DA permit.

5. Permit Availability.

A copy of the permit shall be on the job site at all times during construction. The Permittee shall provide a copy of this permit to all construction representatives. The Permittee shall require that all construction representatives read this permit in its entirety and acknowledge they understand its contents and their responsibility to ensure compliance with all general and special conditions contained herein.

6. Maintenance.

Within 90 days of completion of construction activities within WUS, the Permittee shall provide as-built drawings that show elevations and configurations for all structures and fills constructed. Once these have been submitted to the Corps, the Permittee is authorized to undertake the maintenance activities described below. All maintenance activities within WUS are limited to the ADOT ROW or easement associated with SMF and must comply with all special conditions listed in this permit except for Special Conditions 1, 2, and 3, which apply to initial construction. After the maintenance activity is completed, temporary fills must be removed in their entirety and the affected areas returned to pre-activity elevations, to the maximum extent possible. All project areas disturbed by construction-related activities must be stabilized and upland areas reseeded with a native seed

mixture unless other treatments are specified for the site by the landscape plan and result in stable site conditions that are not susceptible to erosion.

Annual Reporting of Maintenance Activities: Within one year of permit issuance, the Permittee shall develop and maintain an internal tracking system that includes all maintenance activities completed within WUS. Documentation shall include a description of the maintenance activity, location information which identifies the drainage where work occurred, the start and end dates of the work, the approximate area of disturbance, and a description of the restoration activities completed. Beginning in 2020, the Permittee shall provide a report of the maintenance activities conducted to the Corps Regulatory Division once per year, by September 30th for the period July 1st through June 30th.

Rio Salado de Oeste: No modification of the low flow channel is authorized for maintenance purposes without prior coordination with the Corps. In the event the Rio Salado de Oeste ecosystem restoration and recreation project begins to be constructed within the project area by the Corps, these maintenance activities shall be suspended within the Corps' ecosystem restoration and recreation project area. Authorized maintenance activities in this area may resume after Corps' re-evaluation of impacts to WUS under Section 404 of the CWA, and a determination of whether any permit under Section 14 of the Rivers and Harbors Act, and any mitigation, is required.

A. Repair, Rehabilitation, Replacement, or Removal of Structures and Fill:

This permit authorizes the repair, rehabilitation, replacement, or removal of any fill material authorized by the DA permit, unless otherwise exempt under Section 404(f) of the CWA, in order to maintain the structural integrity and operational capacity of the fill material authorized by the DA permit for adequate drainage, flood hazard reduction, and overall public safety. Deviations in the configuration or filled area that result in 0.03 acre or less of additional permanent impacts per crossing are authorized. Deviations include those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This includes the repair, rehabilitation, replacement, or removal of any fill material authorized by the DA permit destroyed or damaged by storms, floods, fire or other discrete events. Deviations greater than 0.03 acre per crossing require prior coordination with the Corps so that it can determine if additional authorization is required to comply with Section 404 of the Clean Water Act. The activity cannot proceed unless the Permittee is notified in writing by the Corps that the activity may proceed.

B. Sediment, Debris, and Obstruction Removal:

The removal of accumulated sediments and debris in the vicinity of fill materials authorized by the DA permit. Activities include the removal of deposited sediment, debris, woody and herbaceous vegetation (including exotic/invasive species), or other obstructions which compromise the integrity of the fill and/or impede flows in the vicinity of the fill authorized by this DA permit. This would include removals to re-establish design flow capacity in a watercourse for public safety when flow events do not sufficiently fully flush those materials completely through the system, which may result in flooding or erosion of adjacent property. Removals may be completed by hand, by mechanized equipment, or using a hydrovac or other similar system to liquefy sediment that would then be vacuumed out of the channel. Material must be removed to an upland site and disposed of

properly unless used for erosion repair as described below. Invasive and noxious plant species removed during maintenance activities shall be disposed of at an approved location outside of WUS.

C. Erosion Repair using Accumulated Sediment:

These activities include the use of accumulated sediments removed/excavated from WUS within the project's ROW or easement to be utilized for the repair of erosion damage in WUS within ADOT ROW or easement. The use of the accumulated sediments to repair erosion damage must occur simultaneously with removal activities and accumulated sediments may only be temporarily stockpiled in the channel while removal/replacement activities are concurrently occurring. All excess material not used shall be removed from the watercourse to an upland site.

D. Temporary Structures or Fills Necessary for Maintenance Activities

This includes temporary fills and other work, including the use of temporary mats, necessary to conduct any of the maintenance activities above. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary discharges, including cofferdams, are necessary for maintenance activities, access fills, or temporary dewatering.

7. Flagging.

The Permittee shall fence, stake or flag the construction limits for all work within WUS prior to initial construction. Offset stakes with the distance indicated on the marker are acceptable where marking of the exact limits is unfeasible or creates a hazard. The contractor(s) shall be thoroughly familiar with each of the project boundaries, and all perimeter markings shall be maintained intact during construction or maintenance. The Permittee shall monitor each of the construction zones to ensure fencing, staking, or flagging remains in place and no disturbance occurs outside of the construction/maintenance limits within WUS.

8. Maintenance of flows.

Except when required by Condition #17 of the Section 401 Water Quality Certification, appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable. In ephemeral washes other than the Salt River, no work will occur when water is present in the worksite. No alteration of flows during construction are authorized, except for the LACC and the Salt River (See Special Condition 9).

9. Dewatering.

Dewatering and diversion of flows within LACC and the Salt River is authorized during construction and maintenance. Water removed from the channel will be returned to the channel without an increase in sediment downstream of the project site. To prevent erosion at the discharge point, energy dissipation and/or scour protection will be utilized as appropriate, and must be removed after dewatering operations have ceased. If flows in the LACC will be interrupted for any reason, advanced notification and coordination with Gila River Indian Community Department of Environmental Quality is required. The Corps must be copied on the notification to ensure compliance.

10. Temporary fills.

Temporary fills must consist of materials, and placed in a manner, that will not be eroded by expected normal flows. No stockpiling or staging of materials or equipment is authorized within WUS with the following exception: equipment or materials too large or unwieldy to be readily moved; e.g., large cranes, slurry tanks and hoses, rebar for rebar cages, and large concrete forms that need to be assembled near cranes and bridge components as necessary for bridge construction in the Salt River. However, the above referenced material stockpiled within WUS shall not consist of hazardous materials such as fuel and may be located in WUS only as long as is necessary for active construction of bridge components. Temporary haul roads placed across WUS shall be designed so that expected flows are not restricted. Constructing at-grade crossings or placing pipes to convey flows are appropriate means to ensure flows are not blocked by roads. Temporary fills necessary in order to dewater or temporarily divert flows, such as coffer dams, are authorized in the LACC and Salt River during construction. After the initial construction activity is completed, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations, to the maximum extent possible. The location of the temporary fills must avoid the removal of mature trees, to utilize previously disturbed areas to the maximum extent possible, and minimize the total area of disturbance. All project areas disturbed by construction-related activities must be stabilized and upland areas reseeded with native seed mixture unless other treatments are called for by the project's landscape plan that sufficiently stabilize the affected areas from erosion.

11. Fill free of contaminants

All fill placed in WUS must be of suitable material (no trash, debris, asphalt, etc.). All discharges of fill material into WUS must be free from toxic pollutants in toxic amounts (Section 307 of the CWA).

12. Invasive species.

The Permittee is responsible for controlling and preventing the spread of noxious invasive species in WUS. The Permittee shall utilize integrated vegetation management practices in accordance with State and Federal Laws and Executive Orders to manage invasive species in WUS.

13. Endangered Species

This DA permit does not authorize you to take any threatened or endangered species or to adversely modify its designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA Section 10 permit, or a Biological Opinion under ESA Section 7, with "incidental take" provisions with which you must comply).

14. Migratory Birds and Bald and Golden Eagles.

The Permittee is responsible for ensuring their action complies the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether incidental take permits are necessary and available for a particular activity.

15. Programmatic Agreement.

The Permittee shall fully implement the attached Programmatic Agreement among the Federal Highway Administration, Arizona State Historic Preservation Office, and the Arizona Department

of Transportation for the Loop 202-South Mountain Freeway Project: Project Number NH-202-D(ADY) TRACS No. 202L MA 054 H5764 01L. This requirement is meant to assure compliance with the permittee's responsibilities under Section 106 of the National Historic Preservation Act.

IX. PUBLIC INTEREST REVIEW.

The Corps received 76 comments within the initial and extended comment period. The primary issues of concern expressed in the letters included water quality, drainage and flooding, cultural and historical resources, air quality, noise and impacts to existing residences. Commenters also expressed concern over alternatives, the design-build process, and inadequacy of proposed mitigation. The comments were provided to the applicant on February 8, 2017, and responses to the comments were received on March 3, 2017.

A request for a public hearing was received from the Community in February 2017 during the comment period following the public notice announcing the Corps consideration of a permit application for the project. During the EIS development, FHWA had held multiple public hearings, forums, and public meetings regarding the project, and transcripts from these functions have been included in the Corps' administrative record. However, because these public outreach efforts did not focus on the potential impacts to aquatic resources, it was decided that a public hearing would be beneficial in order to collect additional information to evaluate the proposed project per 33 C.F.R. Part 327. The Corps accepted the request and notified the Community on March 24, 2017.

The public hearing was held on May 9, 2017 at the Boys and Girls Club of the East Valley-Gila River Branch in Komatke, Arizona. Comments were accepted from the public in three forms: verbally in front of the audience with a time limit, verbally with no time limit to a court reporter located outside of the hearing room, or by submitting written comments. Comments were also accepted in writing ten days after the public hearing. The Corps received 343 in relation to the public hearing. The primary issues of concern raised were similar to those raised during the public notice comment period. These included surface water quality, drainage and flooding, cultural and historical resources, air quality; public interest factors, and discussion of the LEDPA under the Guidelines. Commenters also expressed concern over alternatives, the design-build process, and inadequacy of proposed mitigation. The comments were provided to the applicant on May 19, 2017, and responses to the comments were received on June 30, 2017. The Corps' response to comments received during the public notice comment period and public hearing can be found in the SIR.

The EIS, re-evaluations, and SIR evaluate the probable impacts, including cumulative impacts, of the proposed activity and its intended use. The following discussion evaluates the general criteria stated at 33 C.F.R. 320.4(a)(2).

a. The relative extent of the public and private need for the proposed work has been considered:

As discussed in the FEIS, the regional road network in the Phoenix metropolitan region currently can serve only 84 percent of the total demand while operating at LOS D, with LOS A representing the least congested traffic conditions and LOS F representing the most congested. There are limited options for moving goods and people safely through

the metropolitan area. Population, housing, and employment forecasts for the Phoenix metropolitan region show tremendous growth in the region during the next 20-plus years. This includes a population increase of 2 million people, a housing increase of 0.7 million units, and an employment increase of 1.2 million jobs. Fifty percent of this projected growth is expected to occur within the Southeast and Southwest portions of the region, where the proposed freeway is located. This projected growth would affect not only the existing freeway system but would also cause many of the arterial streets in the study area to experience additional congestion and traffic backups onto the existing freeways, worsening travel conditions on an already-burdened transportation system. In sum, the proposed work is needed (public and private) to improve the existing transportation network and respond to increased population growth in the region.

b. The practicability of using reasonable alternative locations and/or methods to accomplish the objective of the proposed structure or work has been evaluated:

A thorough examination of all available alternatives, including off-site alternatives, has been conducted by FHWA, ADOT, and the Corps. The analysis concluded there are no practicable alternative locations or less damaging designs for the proposed location.

c. The extent and permanence of the beneficial and/or detrimental effects that the proposed structures or work may have on the public and private uses which the area is suited has been reviewed:

Noise, dust, and equipment activity associated with construction would have detrimental impacts on people living or working near the project, but would be temporary and would cease once the project is complete. However, detrimental effects resulting from traffic noise from the freeway would last throughout the life of the project, as would the impacts to aesthetic values in the area. These impacts would be primarily felt by residents near the project, and to a lesser extent, the visitors in the western portion of the SMPP.

As mentioned in the FEIS and 404(b)(1) analysis, the effects to property values are expected to be mixed, depending on the use and location of the property. Single-family homes adjacent to the freeway may see a decrease in value, while commercial and multi-family properties will likely see an increase. Overall, it is expected that values in the area would see a net increase due to the increased accessibility and the shorter travel times to the region that the project would provide. In addition, the rate of commercial and residential development may also increase above the current rate in the Laveen area, which is often characterized as being isolated from the rest of the metropolitan area due to its lack of regional connections and its location between the Salt River to the north and the South Mountains/Community lands to the south. Some residents in the area see this increase in commercial activity and development as a benefit, while others who enjoy the suburban aspects of the area may see this as a detriment.

As mentioned in the FEIS and 404(b)(1) analysis, the population within Maricopa County is projected to continue increasing. This projected growth will affect not only the freeway system but will also cause many of the arterial streets in the Study Area to experience additional congestion and traffic backups onto the existing freeways, worsening travel conditions on an already-burdened transportation system. The proposed project would

provide long-term beneficial effects to the region by improving an overtaxed regional transportation system in the form of increased transportation capacity, regional connectivity, and reduced travel times while meeting future demands for moving people and goods safely through the Phoenix metropolitan region. There would also be a beneficial effect on safety, as much of the regional traffic currently using arterial streets would transition to the new freeway which would reduce the amount of semi-trucks and other vehicles that are traveling on local roads. Overall, an improved regional transportation system would have long term beneficial effects to factors such as economics, safety, energy needs, and other needs and welfare of people as less time and effort are spent traveling across the region.

X. CONCLUSION

After careful weighing of the factors discussed in the EIS, re-evaluations, SIR, 404(b)(1) analysis, and the general criteria above, I find that the proposed project is not contrary to the public interest.

David Castanon
Regulatory Division Chief

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Appendix A
Supplemental Information Report

Appendix B
404(b)(1) Guidelines Analysis

Appendix C

**FHWA and ADOT Environmental Commitments and Mitigation
Measures**